IRISV3
OPERATING INSTRUCTIONS
DECEMBER 1997 THROUGH DECEMBER 2005⋆

**⋆New Parts II, Section 7.4 (DECEMBER 2005), III (JUNE 1998),
IV (JUNE 1999), and V (DECEMBER 2005); &
Revised Part II, Sections 7.2, 7.3, and 7.5 (DECEMBER 2005)**

IRISV3 - OPERATING INSTRUCTIONS, TABLE OF CONTENTS

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IRISV3 - OPERATING INSTRUCTIONS

I. **Description of Changes/Modifications to March '96 Release, IRIS95**

December '97 Release, IRISV3 (Version 3, IRIS)

- Graduation dates and foreign graduate certification are now entered as complete dates rather than as months and years.

- All dates are year 2000 enabled.

- The program has been modified to permit:

  - up to 60 rotations per physician per fiscal year;

  - one day rotations;

  - entering a graduation date within the reporting fiscal year, as long as it precedes all rotations recorded for that physician -- rotations will be permitted to begin on or after the physician's graduation date;

  - for foreign medical graduates, entering a certification date within the reporting fiscal year, as long as it precedes all rotations recorded for that physician, and occurs on or after the graduation date -- rotations will be permitted to begin on or after the certification date; and

  - hyphens in physician name fields.

- An non-fatal warning edit has been added to alert providers when an IME% that exceeds the GME% for a rotation has been entered.

- Two new fields have been added to the assignment (rotation) records. One indicates which year of residency the current rotation attaches to. The second indicates the current residency code during the rotation. (NOTE: the original residency code, on which the number of years of the physician's eligibility is based, and the number of years completed as of July 1 or the reporting FY remain fields in the physician's master record.)

- The Employer field in the master record will be retained as it is, and it has an accessible Help screen. The contents are not edited by IRIS, and providers have used this field for employer identification.

- The Foreign Graduate question and the FOREIGN field in the physician's master record have been eliminated. Instead, the value will be inferred from the medical school code. The foreign graduate's certification date will be requested whenever medical school code "99999" is used.

- Medical school code "99998" has been added to cover <u>all</u> foreign dental schools and other updates to the table of medical school codes have been made.

- A tenth (prefix) character has been added to the social security number field to distinguish between American and Canadian identifying numbers. The prefix will default to "U" for United States graduates, but will be able to be overridden to "C" for Canadians.

- The table of residency codes has been updated.

- Help screens have been added to cover all new fields and existing help screens were modified to include any new text submitted by the Instructions Subgroup.

- A utility program is included with the new IRIS program that:

    - updates data structures;

    - converts graduation and certification dates to their new formats;

    - back-fills the new fields in records entered before the new version of IRIS was received by the provider; and

    - adds the tenth character to the social security number in those records.

Note that the new assignment record fields match current residency year and specialty code data with specific rotations, while the residency year charged for the current fiscal reporting year and the base residency code of the physician are stored in the physician's master record for the fiscal year. Hospitals may, if they wish, go back and edit records already in the system to add the new data. If they prefer not to do that, they can use this utility program to fill the new fields in the assignment records with the same values that appear in the master records. Individual records can still be edited after the utility program is run.

IRISV3 - OPERATING INSTRUCTIONS

II.   **Description of IRISV3**

1.   **Basic Concepts and Installation Procedures**

1.1   **Introductory Note to Personal Computer (PC) Users**

IRISV3 (Version 3.1) was designed for easy operation, and the operating instructions (manual) were designed for easy utilization. If you encounter problems in loading or operating the IRISV3 system, please double check the operating instructions to insure proper use. If you need further assistance, send an e-mail to: iris@cms.hhs.gov.

1.2   Manual Notation and Data Entry Conventions

The following notational rules are adhered to throughout this manual:

(a)   Any text included in quotation marks, such as "literal text" should be entered, literally, from the keyboard.

(b)   All DOS commands (section 1.6) are printed in **BOLD, CAPITAL LETTERS**.

(c)   Bold words or abbreviations in angle brackets, such as **\<Enter\>** refer to keys on the computer keyboard that should be pressed. **\<Up-Arrow\>**, **\<Down-Arrow\>**, **\<Right-Arrow\>**, and **\<Left-Arrow\>** refer to the directional arrow keys.

When entering data in IRIS, the following conventions apply:

(a)   The **\<Caps Lock\>** key should be on at all times.

(b)   The **\<Num Lock\>** key may be either on or off, as the user wishes, but be aware of its setting before you begin. **\<Num Lock\>** toggles the numeric keypad section of your keyboard between its numeric and directional functions.

(c)   Whenever IRIS displays a menu screen with numbered options or directs the user to press one key or another, only a single key should be pressed in response. Do not press **\<Enter\>** when a single key response is called for. You can always recognize when a single key is appropriate, because there will be no highlighted area on the screen in which to enter data. For example, IRIS frequently prompts the user with "yes/no" questions, indicating that either a "Y" or an "N" is expected in response. Simply press **\<Y\>** or **\<N\>** without pressing **\<Enter\>**.

(d)   Whenever data are entered in a highlighted area, **\<Enter\>** must be pressed after the data are complete. The **\<Enter\>** key causes the cursor to leave the highlighted area and tells the program that the response is completed.

(e)   When highlighted fields appear in a group, all responses in the group are stored simultaneously, when **\<Enter\>** is pressed in the last field. Until the last field is completed, you can move backward and forward among fields with the **\<Up-Arrow\>** and **\<Down-Arrow\>** keys, and type over or change responses.

(f)   When highlighted fields appear in groups, you can often shorten the time required for data entry by using the **\<PgDn\>** key. Pressing **\<PgDn\>** after entering data in a single highlighted area generally has the same effect as pressing **\<Enter\>** (see item (j) below for an exception to this rule). Pressing **\<PgDn\>** after entering data into any field within a group of highlighted fields has the effect of pressing **\<Enter\>** in that field and all the remaining fields in the group.

(g)   Dates MUST be entered as eight digit numbers, including all leading zeroes. For example, January 5, 1993 is entered as 01/05/1993. All highlighted date fields are ten characters long

with embedded slashes, as in: "mm/dd/yyyy". The slashes are formatting marks; when you enter a date, the cursor skips over them as though they were not there.

(h)   IRIS utilizes "smart" data entry. The program always knows what a valid response is, and it will not let you exit from a highlighted area until what is entered passes its internal validity tests. If the cursor appears to hang up in a highlighted entry field, check what you typed. Note that while the program can prevent you from entering <u>invalid</u> data, it cannot prevent you from entering <u>incorrect</u> data.

(i)   Many highlighted data entry fields are preset with <u>default values</u>, which anticipate the most likely response the user will make. <u>Default values can always be overridden</u>. The user should always view default values as suggestions by the program. To accept a default value, press **<Enter>**. To change it, type something else over it and press **<Enter>**. To accept a whole group of default values, press **<PgDn>**.

(j)   Notes on numeric entry fields:

I. <u>Definition</u> - a numeric entry field contains only numeric characters, a decimal point, and possibly, a "+" or "-" sign, and yields a number that has algebraic significance; do not confuse numeric fields with character strings that contain only numeric characters, such as residency specialty codes.

ii. A numeric entry field with a default value of zero appears blank. If you enter a 0 (zero) in a numeric field that is part of a group of highlighted fields (or accept a zero default) it will remain blank until all fields in the group have been completed. After the fields have been completed, zero values will be displayed as "0"s.

iii. Be especially careful when entering data in a numeric field that already contains a value. Be sure to <u>retype the entire number</u> and complete the entry with **<Enter>**, rather than **<PgDn>** or an arrow key. For example, if you want to replace the number 501 in a highlighted field with 502, <u>DO NOT</u> simply move the cursor over the "1" and type "2" and then **<Enter>**. That will leave the number 2 in the field.

1.3   Running IRIS from a Hard Disk

IRIS must be executed from your computer's hard disk. To begin, therefore, you must <u>copy the files on the IRISV3 installation diskette to your hard disk</u>. These instructions assume that your diskette/CD drive is drive A and that you will install IRIS on drive C. If your drive letters are different simply substitute the letters that apply to your installation. For example, if your diskette/CD drive is B, substitute "B:" for "A:" in the following paragraphs; if the hard disk you intend to use is drive E, substitute "E:" for "C:" everywhere <u>except</u> section 1.6(c).

Before you begin installation, make sure there is at <u>least 10 megabytes of open space on your hard drive that can be dedicated to IRIS</u>. Note: 10 megabytes should be adequate for most situations, but larger hospitals or those that wish to retain IRIS databases for prior fiscal years may require more space to accommodate on-line data and archived files.

1.4   Required Equipment

This section describes the computer hardware needed to run IRIS. IRIS will run on any modern 100% **IBM compatible PC** equipped with:

-        [REQUIRED] a 3.5 inch disk drive or CD-R/RW drive;

-        [REQUIRED] the following random access memory (RAM) and hard disk space requirements (one of the following combinations must exist):

   At least **8** megabytes of RAM <u>and</u> at least **10** megabytes of dedicated hard disk space. This is the <u>recommended</u> configuration. It will work far more efficiently and will avoid reading and writing temporary files from the hard disk; or

   At least **6** megabytes of RAM <u>and</u> at least **22** megabytes of dedicated hard disk space. This configuration will work, but is <u>not recommended</u>. It should be used only if the user does not have sufficient resources to install additional RAM;

-        [REQUIRED] a PC compatible printer that can print at twelve characters per inch and simulate one of the following standard print modes:

   EPSON FX, IBM Proprinter, HP Laserjet, HP Laserjet II;

-        [REQUIRED] a color monitor with graphics capability;

-        [HIGHLY RECOMMENDED] an uninterruptible power supply to the PC for protection against unexpected power failures.

WARNING: IRIS is a single user program. In some cases it can be run from a network file server, but <u>should not be used in a multi-user environment (that is, with more than one user entering or changing data at the same time)</u>.

1.5 **Additional Software Required to Run IRIS**

- [REQUIRED] **MS-DOS**, Version 5 or higher supplied with the Windows 9x (95, 98, and ME) family of operating systems, or the **MS-DOS Virtual Machine** supplied with the Windows NT (NT, 2000 and XP) family of operating systems (see note below on Windows operating systems);

- [RECOMMENDED] If you have access to:

  dBASE IV or higher (preferred), or any database program whose data file format is compatible with **dBASE III PLUS (ACCESS**, **FOXBASE**, **PARADOX,** and others); or any spreadsheet program that can import **dBASE** data.

  These programs will enable you to access and use your IRIS diskette/CD files ("M3xxxxxx.dbf" and "A3xxxxxx.dbf" where xxxxxx is the provider's six-digit Medicare identification number) without using the IRISV3 program as an interface.

NOTE: IRISV3, an MS-DOS based application, will run under various Windows operating systems. However, you may experience difficulties running this program in certain installations of the Windows NT family of operating systems.

Discussions of running MS-DOS programs under the Windows NT family of operating systems can be found at the following two Microsoft Web pages: http://support.microsoft.com/kb/q196453/ and http://support.microsoft.com/kb/314106/EN-US/. Note that much of the information contained on those two pages also applies to earlier versions of this family of operating systems.

In addition, we have found that a certain user rights issue sometimes prevents some DOS programs from running under XP. It is not sufficient to give the Authenticated Users group full control of the folder in which the program and data files are located. Instead the local user account (Users(Computer Name\Users)) must be given full control rights to this folder.

In any case it is recommended that you consult with your organization's technical support staff to help resolve any DOS/Windows incompatibility issues that may arise.

1.6   Installation

Read the instructions* below thoroughly before you begin installation:

(a)   To begin installation, boot or start your computer, wait for the "C:\>" prompt, and create a directory named IRISV3 on your C Drive to house the revised IRIS program. If your system boots into a menu program, you will have to "Exit to DOS" before proceeding.

         If your prompt does not look like "C:\>", type the command:

                 PROMPT PG <Enter>.

         At the C:\> prompt, create a directory called **IRISV3**. Type the commands:

                 CD\ <Enter>
                 MD IRISV3 <Enter>
                 CD IRISV3 <Enter>

         Your prompt should now be "C:\IRISV3>".

(b)   Insert the New IRISV3 diskette/CD in drive A and type the commands:

                 A:NUSRINST <Enter>

                 A:DB5LIB <Enter>

(c)   Checking your DOS Configuration. Before you can run IRIS, you must check to see that DOS is properly configured for database systems. To do this read and execute the following instructions carefully. This step must be performed on drive C, regardless of the drive letter on which the program was installed.

         (1) First, go to the root directory of your hard drive, and determine whether a file named CONFIG.SYS is present. Issue the commands:

                 C: <Enter>
                 CD\ <Enter>
                 TYPE CONFIG.SYS <Enter>

         If CONFIG.SYS already exists, the last command will list its contents on the screen. If not, it will display the message "File not found".

         *- Use the December 2005 installation instructions in the "Read Me First File" instead; this file ("Read Me IRISV3") is in the CMS web site for IRIS programs.

(2) If CONFIG.SYS <u>already exists</u>, it is essential that it contain two important lines. One begins with the word "FILES" and the other begins with the word "BUFFERS". If both exist, and both lines contain numbers greater than 25, you may proceed to step (e). <u>If any of these conditions is not met</u>, enter the command:

        COPY CONFIG.SYS+CON CONFIG.SYS <Enter>

and skip to (4).

(3) If CONFIG.SYS <u>does not exist</u>, enter the command:

        COPY CON CONFIG.SYS <Enter>

(4) Whether you got to this step from (2) or (3), continue by entering the following:

        FILES=26
        BUFFERS=26
        <Ctrl><Z> <Enter>

(Note - **<Ctrl><Z>** means: press **<Z>** while holding down the **<Ctrl>** key.)

(5) Reboot or restart your computer to activate the changes you just made.

(d)   The program is now installed and ready to use. <u>Always move to the IRISV3 directory before executing the program.</u> To start IRIS from the C:\> prompt type:

        CD IRISV3 <Enter>
        IRISV3 <Enter>.

(e)   <u>Program Initialization</u>. The following steps **must** be performed the first time you run IRIS. <u>Do not attempt to execute any other IRIS functions until this step is complete.</u> Before proceeding, <u>make sure the **<Caps Lock>** key is "On"</u>.

Start IRIS as in 1.6(d), above:

        C: <Enter> (if you are not already at the C prompt)
        CD IRISV3 <Enter>
        IRISV3 <Enter>

Select "Reference Files/Data Management" from the main menu by pressing **<5>** and run each of the first four procedures in the next menu that appears. The Reference Files menu reappears after each procedure is completed. (The Reference Files menu is discussed in detail in section 3.3):

- first, select "Rebuild Data Indexes" by pressing **<3>**. This causes IRIS to create "index files" which enable the program to search and display data in various orders that are required by the different program functions (section 3.3.3);

- second, select "Generate Data Help Windows" by pressing **<4>**. This causes IRIS to create the text screens that are used when the help key is pressed during program execution (section 3.3.4);

- third, select "Set up Administrative Data" by pressing **<1>**; this tells IRIS that you are entering (at a minimum) the requested information about the provider and the fiscal reporting period (section 3.3.1);

- fourth, select "Employer Names" by pressing **<2>** and enter the list of employer names for the resident data selection list. If you have followed the previous steps in order, the employer names list will initially contain only the provider name that was entered in the previous step (section 3.3.2).

1.7   Dealing with Errors

You may occasionally encounter some unexpected condition or situation while you are using IRIS. These can occur for any number of reasons. Unfortunately, although they can be annoying and disruptive, they are often beyond our control. Any of the following may occur:

- If you think you have encountered a bug please contact us immediately. If you receive a message indicating that you have run out of memory, make sure there is nothing else running in the background (menu systems, netware, mouse drivers, etc.,) and, if you are running DOS 5 or higher, make sure it is loaded in upper memory, and then try to run IRIS again. If you still need help call us.

- We have observed during tests of IRIS that the computer running it sometimes locks up or spontaneously reboots itself for no obvious reason and with no discernible pattern. Failures like this occur infrequently and are more likely on some kinds of computers than others. If this should occur simply restart the system.

- We have traced the problem to a compiler flaw involving improper memory management. We have developed a version of the IRIS software that will run on the PC configuration described in section 1.4. This version uses the dBASE V compiler which corrected the problem, but requires more computer resources.

- Sometimes you wind up in the wrong place, or make a mistake, and simply want to stop what you're doing and start again. We have programmed IRIS so that in most cases, when you press **<Esc>** the procedure you are running will terminate and you will return to the IRIS main menu.

- If you think you have "lost" data or "found" missing, garbled or out of order data, don't panic!!! Simply select the "Reference Files/Data Management" function in Option 5 of the IRIS Main Menu, and then execute the "Rebuild Data Indexes" function in Option 3 of the IRIS REFERENCE DATA MANAGEMENT screen (see section 3.3.3 for the importance of this procedure). Press <X> to exit the screen and resume operations. Be sure to implement this procedure often and on a regular basis (especially **before** exiting the IRIS Main Menu) to avoid repeating this situation.

- When printing IRIS reports the data may look "bunched" together. If this is the case, it may be necessary to change the font on your printer to one that has a **pitch of 12 or higher** and a **point size of 12 or lower**. These options are accessed from your printer's Font menu. If you are not sure which font to use, you can print a list of your printer's available fonts along with their pitch and point sizes. This function can be selected from your printer's Font or Test menu.

2. Database Files

IRIS data are kept in database files that are compatible with all standard database software, including dBASE III PLUS. All database files are named with the extension "DBF". Database files fall into three categories:

- reference files;

- files of active data related to resident assignments;

- archives, or data files from previous fiscal reporting periods that have been retired.

IRIS contains three <u>Reference Databases</u>:

RESTYPE.DBF contains a table of residency specialty codes and descriptions. Descriptions appear in two columns, primary and secondary. This file is maintained by Centers for Medicare & Medicaid Services (CMS), and cannot be modified by users. It is used in display windows, from which the user can select the code that applies to a particular intern or resident.

MEDSCHL.DBF contains a table of medical school codes, names, and locations. This file is maintained by CMS, and cannot be modified by users. It is used in display windows, from which the user can select the code that corresponds to the medical school from which a particular intern or resident graduated.

EMPNAMES.DBF contains a table of employer names. This file is initially empty, and is filled and maintained by the user. It is used in display windows, from which the user can select a particular intern or resident's employer of record during the fiscal year for which data are being reported.

IRIS maintains two <u>Resident Information Databases</u>, using a master/detail structure. The IRIS master file consists of one record for each resident in each reporting year, while the detail file contains information on each rotational assignment:

IRISMAST.DBF is the IRIS master file. Each master file record identifies one intern or resident, by both social security number and name, and an IRIS fiscal reporting period. Each record also specifies the area of specialization and residency year, medical school graduated from, foreign graduate certification, if appropriate, and current employer. To enable the records created by each hospital to be merged into a national database, master records also include the provider number of the hospital that is creating the database.

If you purge your **IRISMAST.DBF** data each year (section 3.3.5), the master file will contain one record for each resident. If data from previous reporting periods are retained in the active database, **IRISMAST.DBF** will include one record for each resident for every reporting year in which he or she was reported by the provider.

IRISASGN.DBF contains one record for each rotational assignment reported. There must be at least one assignment record associated with each master record, and IRIS has the capacity to create up to 60 different assignment records for each resident in each reporting period.

3. Running IRIS

3.1 General Operating Concepts

The purpose of the IRIS program is to capture information required by 42 CFR 413.75 and 42 CFR 412.105 about interns and residents in approved programs who work at hospitals that participate in the Medicare program. This information is needed to determine Medicare payments for indirect medical education and direct graduate medical education. The required information is stored, by hospitals' Medicare cost reporting periods, in two databases, **IRISMAST.DBF** and **IRISASGN.DBF**.

At the end of each reporting period, the databases for that period are transmitted to CMS on 3.5 inch disks or CDs (8cm or 12cm). (The hospital may either purge its databases at the end of each reporting period or retain data from successive reporting periods on line in **IRISMAST.DBF** and **IRISASGN.DBF**.)

Every IRIS disk/CD submitted to CMS is subjected to the same edit criteria and any disk/CD that does not pass 100% of the edits will be returned to the provider. The IRIS program contains all of the edits applied by CMS. Thus, any disk/CD produced by IRIS using the recommended procedures below should be error free.

To run IRIS you must first perform the following steps:

- select one PC, equipped with a hard disk, to be the designated IRIS computer;

- load the program files onto the designated PC's hard disk as described in sections 1.6(a) thru 1.6(d);

- execute the data initialization steps described in section 1.6(e);

- Enter the intern/resident data. Data can be entered one record at a time, from the keyboard, or it can be imported from another data file that is prepared in advance or downloaded from another computer system (see section 4.8);

- Update index files as described in section 3.3.3;

- Create the CMS report disk/CD -- this procedure must be performed from the hard disk of the designated PC.

If data are entered from the keyboard, CMS strongly recommends that data entry be done on the designated PC.

3.2   <u>Running IRIS - the IRIS Main Menu</u>

To run IRIS from the C:\> prompt, move to your IRISV3 directory and type **IRISV3 <Enter>** as described in section 1.6(d). IRIS begins by displaying the IRIS Main Menu:

```
╔══════════════════════════════════╗
║ INTERN AND RESIDENT INFORMATION SYSTEM ║
║     Version 3        December, 1997    ║
╠────────────────────────────────────────╣
║ ┌──────────────────────┐               ║
║ │ Data Management      │               ║
╠─┴──────────────────────┴───────────────╣
║  <1> ADD New Intern/Resident Data      ║
║  <2> BROWSE Intern/Resident Data       ║
║  <3> CHANGE Intern/Resident Data       ║
║  <4> DELETE Intern/Resident Data       ║
║  <5> Reference Files/Data Management    ║
║                                         ║
╠───────────────┬─────────────────────────╣
║  Reports: │                             ║
╠───────────┴─────────────────────────────╣
║  <6> Data Summaries by Provider FY     ║
║  <7> Create HCFA Report Data Disk      ║
╠─────────────────────────────────────────╣
║  <X> Exit                               ║
╚═════════════════════════════════════════╝
```

The DELETE Function removes all data associated with a specified resident for one selected Type and Year of Residency.

To delete Assignment(s) but leave all other data for a resident unchanged for that Type and Year of Residency, use the CHANGE Function.

■■■

FY: 1-Jul-1993 to 30-Jun-1994
Provider: 130099

To Change the Provider Number FY Start Date, or FY End Date,

Select Menu Option <5>.

{Press <F1> for Help}

    SELECT OPTION FROM LIST
(Press option number or "X")

The Main Menu lists the seven principal program modules that comprise IRIS. To run one, just type its number without the **<Enter>** key.

<u>Option 1 creates new IRIS master records</u>. The user can create new records, one at a time, by typing data directly from the keyboard (section 4.1) or by importing data from other files (section 4.8). A new master record may either add a new resident to the database, or add a new record for the current reporting period for a resident who is already in the database from a prior period.

When a new master record is created from the keyboard it must be accompanied by at least one assignment record. When data are imported from another source (section 4.8), the IRIS edits will reject any master record that does not have at least one assignment record associated with it.

<u>Option 2 displays information from existing master records and assignment records</u>. Use option 2 to review data when no changes to the data are intended.

Option 3 displays information from existing master records and assignment records and permits the user to change the data. Use option 3 to:

- change data in a master record;

- change data in an assignment record;

- delete one or more assignment records, while leaving the associated master record and at least one of its assignment records intact;

- add one or more assignment records to an existing master record.

Option 4 deletes master records and all of their associated assignment records. Use option 4 only when you want to remove all data associated with a particular master record.

Option 5 performs a number of IRIS' data management functions:

- setting up and maintaining IRIS' global variables, that is, data used throughout the various program functions;

- adding, changing, and deleting entries in the "Employer Names" file;

- rebuilding IRIS' index files;

- generating the text windows required for operation of the help key;

- archiving and/or purging data from prior reporting periods.

Option 6 generates summary reports of the data that have been entered so the user can always maintain an up to date hardcopy record of the data.

Option 7 creates the data disk/CD that will be sent to CMS.

IRIS contains a help function that is accessed by pressing **<F1>**. Pressing **<F1>** interrupts program operation and displays instructional and explanatory text in a "help window". Examine the information for as long as you wish and then press **<Home>** to close the window and resume processing. The screen will reappear exactly as it was when **<F1>** was pressed. Note that one of the installation procedures discussed in section 1.6 was the creation of the help text screens. Help text is stored in screen files (with extension "SCN") which may become lost or damaged. Any time a help window has missing or damaged text, regenerate the screen files by selecting option 5 from the IRIS Main Menu.

You will spend most of your time in options 1 through 4. In all manual data operations, every data entry field is accompanied by simple English instructions on the screen, and almost every function has an additional help screen that can be accessed by pressing **<F1>** at any time.

However, <u>before entering IRIS data for the first time you should run each of the procedures contained in Option 5</u>. The functions contained in option 5 have a global impact on the way the rest of IRIS functions. Thus, Option 5 is discussed next, in section 3.3.

Each time IRIS is executed, it remembers the provider ID and the fiscal reporting period that were used in the previous run. Every IRIS resident master record contains the provider ID, the fiscal period start date, and the resident's social security number. Thus, it is possible for records in one database to refer to more than one reporting period and/or provider ID.

This permits the following IRIS scenarios to occur:

- IRIS data can be purged after each report to CMS, so that only current period information is in the databases at any particular time;

- data from more than one reporting period can reside in the database without fear of confusing data from different periods;

- if a provider's ID number should change at any time, records with the old and the new ID can reside in the database at the same time, and the program has the ability to update the provider ID in records that have already been stored with the old ID.

3.3   <u>Reference Files and Maintenance Functions (Main Menu option 5)</u>

Selecting "Reference Files/Data Management" from the IRIS Main Menu causes a secondary menu screen to appear:

```
╔═══════════════════════════════════════════╗
║        IRIS REFERENCE DATA MANAGEMENT      ║
╠═══════════════════════════════════════════╣
║   <1> Set up Administrative Data           ║
║                                            ║
║   <2> Employer Names                       ║
║                                            ║
║   <3> Rebuild Data Indexes                 ║
║                                            ║
║   <4> Generate Data Help Windows           ║
║                                            ║
║   <5> Archive/Purge Old Data               ║
║                                            ║
║   <6> Add HCFA Approved Residency Codes     ║
╠═══════════════════════════════════════════╣
║   <X> Exit                                 ║
╚═══════════════════════════════════════════╝


    SELECT OPTION FROM LIST ======>
```

3.3.1 - The phrase "Administrative Data" refers to a number of program variables, that some software packages refer to as settings or global parameters. Each of these variables has a pervasive effect on some aspect of IRIS' operation. Run this procedure to assign values to these variables during initialization, and whenever any of the values changes.

The first group of variables are the provider name and identification number and the start and end dates of the fiscal reporting period. When you receive IRIS, these variables are blank, and they must be assigned values before any IRIS data are entered or imported. Data entry is reasonably straightforward, and the combination of screen prompts and the available help windows should answer any questions that arise.

After entering the provider and fiscal year information for the first time, you will enter this function infrequently, only when the need arises. Under normal circumstances, this will be when:

-      a new fiscal reporting period begins;

- the provider is assigned a new Medicare ID number, or its corporate name is legally changed for some reason;

- the user realizes that one or more of the items previously entered was wrong.

IRIS assumes that <u>a provider can have only one valid provider number during any fiscal reporting period</u>.

Data entry notes:

- Provider numbers can include only the characters 0, 1, . . ., 9;

- Provider names are unedited. However, take care to avoid misspellings, abbreviations, and acronyms, and if the provider name is also to be used as an employer name, make sure they are entered identically. (IRIS always assumes that this is the case, so whenever you enter or change the provider name, the employer name list will automatically be modified as well);

- Whenever the fiscal year start date changes, IRIS assumes that the default fiscal year end date is exactly one year minus one day later, and offer that date as a default value.

When you change either the provider number or the fiscal year dates, IRIS doesn't know why the change was made unless you tell it. Therefore, if you change either the provider number or the fiscal reporting period, IRIS will ask whether it/they should be changed in all previously saved records for the same period.

The next two global variables tell IRIS how to display residency specialties and medical schools when the user requests a selection window. The user can select the ordering schemes for the display to suit his or her own preference. The selection does not affect the contents of the displays, only the order.

The last global variable identifies your printer to IRIS. Printers are normally described by "drivers" which are groups of character strings used to send commands to printers in the specific code that each printer understands. Printers are normally addressed by their driver code name, which, in IRIS, is an eight character (or less) string. If you know the driver code name for your printer, enter it when IRIS prompts for it. If not, enter a blank driver code and IRIS will display a list of printers from which you can select one.

Note: report functions are generally programmed to print at 12 characters per inch. For most printers this is not a problem, but some printers either cannot print in 12 pitch or cannot be set to 12 pitch by means of characters transmitted from software programs. The most notable example is several older <u>HP Laserjet</u> models, which cannot print at 12 characters per inch without an additional font cartridge.

From IRIS' perspective both situations have the same symptom - a blank 12 pitch driver. Whenever IRIS detects this condition, it offers the user a choice between setting the pitch manually from the printer console or printing reports that would normally be in 12 pitch in compressed type (17 characters per inch). This assures that every situation is accommodated.

3.3.2 - The "Employer Names" function builds and maintains the table of employer names that IRIS uses as a selection list during data entry for resident information. Some items to note:

-        when you install IRIS, both the table of employer names and the provider number are blank. When you enter the provider number in the administrative data screen (section 3.3.1) that same name is added to the employer name screen automatically;

-        if an employer name is not on this list it cannot be selected in the main IRIS data entry screen. Employer names cannot be typed from the keyboard while resident data are being entered.

3.3.3 - The "Rebuild Data Indexes" function provides some insurance for the most vulnerable part of IRIS. To run it, just press **<3>** from the Reference Data menu, and the program runs itself.

Index files enable IRIS to view the various databases in whatever order is most convenient or useful at any particular moment. For example, your ability to search for resident records based on social security number, name, residency code, or medical school depends on IRIS' ability to reorder the IRIS master records quickly and efficiently.

Index files make this possible by telling IRIS in what order to display or search records based on the order criteria selected. But index files must be updated whenever records are added or deleted, and often, when they are changed. As a result, index files are subject to momentary power interruptions that might otherwise pass unnoticed. Whenever an index file appears to be damaged, simply execute this function. It works every time.

This leaves only the question: "How do I know when an index file has been damaged?" Actually, the symptoms are fairly easy to recognize. The more obvious indications are explicit error messages such as "Record out of range" or "No such record in index" or "Error opening file" followed by a file name that ends in "MDX". More subtle are occasions when a display list simply looks wrong -- items missing, garbled, or out of order; or, you may attempt to browse or edit a record that you know has been saved and IRIS cannot find it. If any of these symptoms arise there is an excellent chance that rebuilding the index files will fix the problem.

3.3.4 - The "Generate Data Help Windows" function creates all of the text screens that appear when the **<F1>** help key is pressed. To run it, just press **<4>** from the Reference Data menu, and the program runs itself.
You must execute this procedure the first time you run IRIS because the IRIS installation diskette does not include the text screens. Should any of the text windows become damaged or lost, simply run this procedure again.

3.3.5 - Use the "Archive/Purge Old Data" function to remove data from a previous fiscal reporting period from the IRIS databases. Your files will continue to grow larger as you add data unless you run this procedure.

Each user must decide whether to retain data in the active IRIS databases from prior reporting periods. The only limit on the number of periods that can be retained is the space available on the hard disk.

The name "archive/purge" reflect the two functions performed by this procedure. The word "purge" refers to removing old records from the databases **IRISMAST.DBF** and **IRISASGN.DBF**. The word "archive" refers to simultaneously copying those records onto diskettes/CDs for safe keeping. Note that any archived records can be accessed by any dBASE III PLUS compatible database program, and can be remerged into the IRIS databases using the data import function described in section 4.8.

3.3.6 - Several "dummy" codes have been included in the residency code table to provide for possible addition of codes in the future. Codes may only be added with the prior approval of CMS. If you add a code to the residency code table in your individual copy of IRIS without CMS' expressed approval, all records that contain the new codes will be rejected when your files reach your fiscal intermediary, because until CMS approves the changes, the new codes will not exist in the validation files.

Once you have CMS' approval, actually adding the codes is a simple matter of running option 6 from the Data Management menu. You'll be greeted by a warning similar to the one in the previous paragraph, after which, a self explanatory data entry screen will appear. Simply type your new primary and secondary descriptions and save your new data.

4. <u>Managing Intern/Resident (I/R) Data from the Keyboard</u>

The first four items in the IRIS Main Menu are used to add, review, modify, and remove records from the I/R data files, **IRISMAST.DBF** and **IRISASGN.DBF** (refer to the general discussion in section 3.1). Whenever data entry is done from the keyboard it uses the same, specially formatted entry screen.

4.1   <u>The Intern/Resident Data Entry Screen</u>

The data entry screen illustrated below is used to create new I/R records from the keyboard and to review, change, and delete these records. The top half of the screen records information for the master record, and the bottom half, labeled "RESIDENCY ASSIGNMENTS", captures data for up to 60 rotational assignments for each master record.

```
  Provider:                INTERN/RESIDENT INFORMATION SYSTEM    FY   /  /  -  /  /

SSN: U-    -   -        Name (First M Last):
Employer:

Residency Data - Year:         Type Code:
Desc:                                    ,

Medical School:           Graduated:   /  /        Foreign Student Cert:   /  /
                                    mm/dd/yyyy                             mm/dd/yyyy

                            ═══RESIDENCY ASSIGNMENTS═══
 ║ROTN│START DATE│  END DATE│ F/P PERC│ IME PERC│ GME PERC│ RES YEAR│PROG CODE║
 ║                                                                            ║
 ║  1 │  /  /    │  /  /    │      .  │      .  │      .  │         │         ║
 ║  2 │          │          │         │         │         │         │         ║
 ║  3 │          │          │         │         │         │         │         ║
 ║  4 │          │          │         │         │         │         │         ║
 ║  5 │          │          │         │         │         │         │         ║
 ║  6 │          │          │         │         │         │         │         ║
 ║  7 │          │          │         │         │         │         │         ║
 ║  8 │          │          │         │         │         │         │         ║
 ║  9 │          │          │         │         │         │         │         ║
 ║ 10 │          │          │         │         │         │         │         ║
```

4.2 **Selection Windows**

To reduce keystrokes and prevent errors, IRIS makes use of <u>selection windows</u> during data entry whenever it needs a classification from a list. Selection windows are used for employer names, residents' areas of specialization, medical schools, and for selecting master records that are to be reviewed, changed, or deleted.

All selection windows work the same way. The bottom line of the window is reserved for instructions, and a help screen can be accessed by pressing **<F1>** whenever a selection window is visible. A few simple rules apply to selection windows:

(1)   Data in selection windows are listed in some predefined order. Employer names are always alphabetical; specialty code order can be numerical, by code, or alphabetical, by description; and medical school order can be numerical, by school code, or alphabetical, by name or state/province. The user specifies the list order for specialties and medical schools (section 3.3.1).

(2)   When a list is too long to fit in a window, it appears in "scrolling" mode. The specialty code and medical school windows always appear this way, and the employer names window may, depending on how many names the user defines (section 3.3.2). Since an item must be visible to be selected, you <u>must</u> scroll the list in the window until you can see the item you want.

There are two ways to scroll the contents of a window:

-     press **<PgDn>** to replace the current contents of a window with the next screenful of records.

-     press a single letter or number key to display a windowfull of data starting with the first item whose key value begins with the character you press. For example, pressing **<2>** while scrolling specialty codes in code order moves the first 2000 series code to the top of the window. Pressing **<M>** while scrolling medical schools in state order moves the first Massachusetts (MA) medical school to the top of the window.

(3)   Whenever a window is in scrolling mode you must tell IRIS when you are finished scrolling by pressing **<End>**. You will be locked in the window until **<End>** is pressed. **<End>** can be pressed at any time when a window is in scrolling mode.

(4)   When you press **<End>**, IRIS puts the window in "selection" mode, and highlights the first item. If the number of items in the list did not originally fill the window, it would have been in selection mode when it first appeared. To select an item from the window, use the **<Up-Arrow>** and **<Down-Arrow>** keys to highlight the item you want and then press **<Enter>**.

4.3   Adding New Intern/Resident Master Records from the Keyboard

Option 1 of the IRIS Main Menu adds new resident master records to **IRISMAST.DBF**. Since a new master record must be accompanied by at least one assignment record, at least one record is added to **IRISASGN.DBF** for each new master record. Pressing **<1>** at the IRIS Main Menu brings up a short selection menu:

```
╔═══════════════════════════════════════╗
║                                       ║
║   <1> Add Records from Keyboard       ║
║                                       ║
║   <2> Import/Append External Data     ║
║                                       ║
╚═══════════════════════════════════════╝
```

Press **<1>** again to create a new master record from the keyboard. Importing new records from other sources is discussed in section 4.8. IRIS displays the Intern/Resident Data Entry Screen, with the provider number and the fiscal reporting period already entered and a help screen prompt added. The cursor is located in the social security number (SSN) input field.

```
─────────────────────────────────────────────────────────────────────────────
  Provider:              INTERN/RESIDENT INFORMATION SYSTEM    FY  / / - / /

SSN: U-   -  -        Name (First M Last):
Employer:

Residency Data - Year:        Type Code:
Desc:                                     ,

Medical School:          Graduated:   / /       Foreign Student Cert:   / /
                                   mm/dd/yyyy                        mm/dd/yyyy


╔═══════════════════════════RESIDENCY ASSIGNMENTS═══════════════════════════╗
║ROTN│START DATE│  END DATE│ F/P PERC│ IME PERC│ GME PERC│ RES YEAR│PROG CODE║
║                                                                           ║
║  1 │  / /     │   / /    │      .  │      .  │      .  │         │         ║
║  2 │          │          │         │         │         │         │         ║
║  3 │          │          │         │         │         │         │         ║
║  4 │          │          │         │         │         │         │         ║
║  5 │          │          │         │         │         │         │         ║
║  6 │          │          │         │         │         │         │         ║
║  7 │          │          │         │         │         │         │         ║
║  8 │          │          │         │         │         │         │         ║
║  9 │          │          │         │         │         │         │         ║
║ 10 │          │          │         │         │         │         │         ║
╚═══════════════════════════════════════════════════════════════════════════╝
─────────────────────────────────────────────────────────────────────────────
```

The key elements of a master record are the provider number, the reporting period start date, and the resident's SSN. Key elements establish the uniqueness of each master record -- only one master record can include any unique combination of provider number, reporting period start date, and SSN. In practical terms, since all of the records created by one provider have the same provider number, the I/R's SSN determines the uniqueness of the master records entered in each reporting period.

Begin creating a new master record by typing an SSN and pressing **<Enter>**. Alternatively, you can change your mind at this point. Press **<Enter>** without typing an SSN to return to the previous menu.

IRIS knows that valid SSNs contains numerals between zero (0) and nine (9). If the SSN you enter is not entirely numeric, the cursor will not leave the entry field. This is typical of the way IRIS behaves whenever it encounters an <u>invalid</u> entry. If the cursor gets "stuck" in an entry field and you're not sure why, press **<F1>** and review the help screen information.

If a valid SSN was entered, IRIS checks whether a master record already exists for this SSN. If so, the following message appears:

```
┌─────────────────────────────────────────────────────┐
│Data for Soc-Sec-Num 012-34-5678 have already been entered│
│          for Fiscal Year 07/01/93 to 06/30/94       │
│    Run Main Menu option <3> to change this information.   │
└─────────────────────────────────────────────────────┘
```

Next, IRIS checks whether this SSN is in the master file from a previous fiscal year. If so, it displays a different message:

```
┌─────────────────────────────────────────────────────┐
│ Data for Soc-Sec-Num 012-34-5678 have been retained for │
│    an earlier Reporting Period: 07/01/92 to 06/30/93 │
│Locating previous Employer, Med School, and Residency Data│
└─────────────────────────────────────────────────────┘
```

IRIS uses the personal data entered for the earlier reporting period as defaults for the current one, incrementing the residency year by one. If default values appear, they represent what IRIS would reasonably expect you to enter based on data from an earlier reporting period. If the default values seem inappropriate, then either your current information or the information previously reported to CMS is incorrect, and it is the provider's responsibility to resolve the inconsistency.

The cursor moves to the First Name field and waits for you to enter the I/R's name, or change/confirm the default name. IRIS will not permit either the First Name or Last Name to be blank. (The **<PgDn>** key's function is turned off for the three name fields.)

The next few steps involve selecting data from windows (section 4.2). First, IRIS opens the Employer Names window and displays your selection on the entry screen. Be aware of the default value that was displayed if an employer from an earlier period was found.

When the cursor moves to the residency year entry field, enter the number of years the I/R had <u>completed</u> in all types of residency programs, in accordance with the correlative help screen.

There are three ways to enter a residency specialty code and a medical school code:

- if a default value is present, and you believe it is correct, press **<Enter>**;

- regardless of whether a default value is present, you can type a new residency code and then press **<Enter>**;

- you can enter a blank residency code. If you want to enter a blank code and a default value is present, delete the default value and press **<Enter>**.

Entering a blank code causes IRIS to open the appropriate selection window. If the window appears, select a code following the rules in section 4.2. IRIS displays the specialty and medical school codes and the specialty description in the entry screen after your selections.

The final three entry fields for the master I/R record concern medical school graduation and certification. The graduation date is entered in the form "mm/dd/yyyy". The month and day must include a leading zero if it is less than 10 and neither month, day, nor year may be blank. Enter ("01") as the first day of the month if the specific day is not available.

If the I/R graduated from a foreign medical school, the certification date must be entered in the form "mm/dd/yyyy". The month and day must include a leading zero if it is less than 10 and neither month, day, nor year may be blank. Enter ("01") as the first day of the month if the specific day is not available. Note that the **<PgDn>** key is also disabled for these final three fields to force the user to respond.

Data for the master record are now complete. As the cursor moves to the first field for assignment 1, a brief help window appears above the assignment table portion of the entry screen.

Each rotational assignment is described by five data elements. The "FROM" date is the first day of an assignment and the "TO" date is the last day of an assignment. All dates are entered as 6 digit numbers (mm/dd/yy) with all appropriate leading zeroes included. The three required percentages are positive integers between 0 and 100, inclusive. Each assignment field has a help screen that can be accessed by pressing **<F1>** whenever the cursor is in that field. Just before you begin to enter data for the first rotation, the entry screen looks like:

```
┌─────────────────────────────────────────────────────────────────────┐
│ Type Assignment Data and Press < Enter > to Move to next Entry Field│
│          Press < Up-Arrow >  to Return to a Previous Field          │
│          Press < PgDn > after last Completed Assignment Line        │
└─────────────────────────────────────────────────────────────────────┘
```

ROTN	START DATE	END DATE	F/P PERC	IME PERC	GME PERC	RES YEAR	PROG CODE
1	/ /	/ /	.	.	.		
2							
3							
4							
5							
6							
7							
8							
9							
10							

RESIDENCY ASSIGNMENTS

Enter all of your assignment records and then press **<PgDn>** to clear the unused fields. When all of the assignments have been entered, IRIS checks that:

-     at least one rotational assignment has been reported;

-     all FROM and TO dates lie within the bounds of the fiscal reporting period; and

-     no two assignment periods overlap.

No editing occurs until all assignments have been entered, and IRIS will not let you exit from the Assignment portion of the entry screen until all edit problems have been resolved. In IRIS, an overlapping assignment is one whose FROM date lies between the FROM and TO dates for any other assignment, or is the same as the FROM or TO date for any other assignment.

Whenever IRIS detects an edit failure in an assignment record, an information window explains exactly what is wrong, and the cursor moves to the first field of the first offending record. If overlapping dates are detected, all remaining dates in the assignment list can be adjusted. Please refer to the help screens for the assignment fields for instructions on how to report assignments.

Report Full/Part Time, GME and IME percentages as integers rounded to the nearest whole percent. The lack of precision resulting from such rounding tends to cancel out when averaged over a large number of I/Rs. In some cases, more than one hospital may claim a portion of an I/R's time during a reporting period (fiscal year). When this occurs it is the responsibility of the hospitals to coordinate their reporting to assure that the total time claimed by all hospitals over the reporting period does not exceed the actual time worked by the I/R. <u>If any such errors are detected by CMS edits, the records will be returned to the hospitals for correction.</u>

When data entry is complete you must direct IRIS to save the data, or no new records will be created. IRIS offers three options:

1-Save Data as Entered 2-Reenter Data 3-Quit

Pressing **<1>** causes the new records to be created. Pressing **<2>** causes IRIS to cycle back through the entire entry screen to enable you to make changes to what you entered before saving the data. Pressing **<3>** terminates data entry without creating any records.

Finally, IRIS prompts your next action:

1-Enter another New Record   2-Quit

4.4   Locating an Existing Master Intern/Resident Record

The first step in reviewing, changing, or deleting IRIS data is locating a master record. IRIS offers five ways to locate a master record depending on what information is readily available to the user. The process begins with the IRIS Locate Screen:

```
Provider: 130099    INTERN/RESIDENT INFORMATION SYSTEM    FY 07/01/93-06/30/94

Select a Search Option:                              {Press <F1> for Help}

  ╔═══════════════════════════════════════════════╦═══════════════════╗
  ║  Search Option                                ║  Search String    ║
  ╠═══════════════════════════════════════════════╬═══════════════════╣
  ║  1 - Soc-Sec-Num of Intern/Resident           ║      -  -          ║
  ║                                               ║                   ║
  ║  2 - Last Name of Intern/Resident             ║                   ║
  ║                                               ║                   ║
  ║  3 - Residency Code                           ║                   ║
  ║                                               ║                   ║
  ║  4 - Medical School                           ║                   ║
  ║                                               ║                   ║
  ║  5 - List All Interns/Residents               ║                   ║
  ╠═══════════════════════════════════════════════╩═══════════════════╣
  ║                     X - Exit                                      ║
  ╚═══════════════════════════════════════════════════════════════════╝
```

To select a search procedure press its number key and the cursor will move to the corresponding entry field. Pressing **<5>** causes IRIS to list all I/Rs in **IRISMAST.DBF** for the current reporting period in alphabetical order. For any of the other search procedures you may enter a complete SSN, name, or code, or you may enter one or more characters at the beginning of the field.

Searching by SSN - Press **<1>** and enter all or part of an SSN. IRIS searches all of the SSNs in the master file for the current reporting period. If it finds one that matches what you entered, IRIS lists the I/Rs in SSN order beginning with the first SSN that matched. For example, if you enter "57" in the SSN entry field, IRIS searches for an SSN whose first two digits are "57". If a match is found on a partial SSN, IRIS lists the I/Rs. If not, the message:

** SEARCH FAILED **

is displayed and you can select another search option. If a match is found on a complete SSN, the I/R's data are displayed on the Intern/Resident Data Entry Screen.

Searching by Last Name - Press **<2>** and enter all or part of an I/R's last name. IRIS searches all of the last names in the master file for the current reporting period. If it finds one that matches what you entered, IRIS lists the I/Rs in alphabetical order beginning with the first name that matched. For example, if you enter

"SMI" in the Last Name entry field, IRIS searches for a name whose first three letters are "SMI". If a match is found, IRIS lists the I/Rs. If not, the message:

** SEARCH FAILED **

is displayed and you can select another search option. A match always causes IRIS to list the I/Rs for further review because a last name is not a unique identifier.

Searching by Residency Code - Press **<3>** and enter all or part of a residency specialty code; or, enter a blank field to select a residency code from a selection window. IRIS then searches all of the master records in the current reporting period for one whose residency code matches the characters you entered. If a match is found, IRIS lists the I/Rs in residency code order beginning with the first record that matched. If not, the message:

** SEARCH FAILED **

is displayed and you can select another search option.

Searching by Medical School Code - Press **<4>** and enter all or part of a medical school code; or, enter a blank field to select a medical school code from a selection window. IRIS then searches all of the master records in the current reporting period for one whose medical school code matches the characters you entered. If a match is found, IRIS lists the I/Rs in medical school code order beginning with the first record that matched. If not, the message:

** SEARCH FAILED **

is displayed and you can select another search option.

The list of I/Rs, when displayed, can be scrolled like a selection window (section 4.2). In addition, you can tell IRIS that you want to terminate the search process at any time by pressing **<Esc>**. When you have selected an I/R from the list, the master record and assignment data are displayed on the Intern/Resident Data Entry Screen.

4.5   <u>**Reviewing Resident Data**</u>

To review data for a particular I/R press **<2>** at the IRIS Main Menu and then execute the search procedure in section 4.4 to locate the I/R whose data you want to look at. When you have located the I/R, the data will be displayed on the Intern/Resident Data Entry Screen.

Review the data for as long as you wish, and then, in response to the prompt at the bottom of the screen, press **<1>** to search previous I/R records, or **<2>** to search the next record, or **<3>** to return to the Search Menu, or **<4>** to return to the Main Menu.

4.6   Changing Resident Data

To edit/change data for a particular I/R press **<3>** at the IRIS Main Menu and then execute the search procedure in section 4.4 to locate the I/R whose data you want to look at. When you have located the I/R, the data will be displayed on the Intern/Resident Data Entry Screen.

The only item of data in the master record that cannot be changed is the social security number. If the SSN is incorrect, you will have to delete the master record and reenter it with the correct number.

Editing data in the master record is almost identical to entering the data originally. One difference is that since the data already exist, every field has a default value. This is first noticeable when the cursor moves to the name fields. Unlike the new record procedure, the edit procedure does not disable the **<PgDn>** key here, so a single keystroke can accept the first, middle, and last names if no changes are desired.

If the presently stored employer name is no longer a valid name in the Employer Name List (you may have deleted it or changed its legal name or spelling) you will have to select another. If it is still valid you can keep it or pick another one.

The residency year, residency type, and medical school code fields are handled exactly as they are when default values were present from a previous reporting period in the new record procedure. The remainder of the record is similar. The only interesting point of difference occurs if the I/R was originally entered as a foreign graduate with a certification date, and the user now changes the I/R as non-foreign graduate. IRIS skips the certification date without commenting.

Editing assignment data is a more powerful procedure than the original entry procedure. All of the saved assignments are displayed in chronological order and the user can alter existing assignments, add new ones, or delete assignments that were previously stored, and all assignment fields can be changed.

The assignment half of the entry screen appears, as in the new record procedure, with all 60 assignment records simultaneously highlighted, regardless of how many are unfilled. As in the new record procedure, an instruction window appears above the assignment data, but the instructions are more powerful in this procedure. Also, as in the new record procedure, assignment dates are not edited by IRIS until data entry is completed. The IRIS edits are performed the same way, but with everything that appears on the screen having equal status -- that is, IRIS does not distinguish between old, new, and changed assignment dates when screening for overlaps.

```
┌──────────────────────────────────────────────────────────────────────────┐
│  Type Assignment Data and Press <Press> after last Completed Assignment Line │
│       Press <Enter> to Move to next Field, <Up-Arrow> to previous Field    │
│              To Remove an Assignment, Delete its "FROM" Date               │
└──────────────────────────────────────────────────────────────────────────┘
```

ROTN	START DATE	END DATE	F/P PERC	IME PERC	GME PERC	RES YEAR	PROG CODE
1	/ /	/ /	.	.	.		
2							
3							
4							
5							
6							
7							
8							
9							
10							

RESIDENCY ASSIGNMENTS

IRIS' editing rules for assignment dates are the same as in the new record procedure. Assignment periods may not overlap or extend outside the fiscal reporting period, and the user may not delete all of the previously stored assignments. At least one assignment must always remain unless the master record is deleted.

When data entry is finished you may save the changes you made, reenter the data, or quit without saving any changes.

4.7 **Deleting Resident Data**

Option 4 from the IRIS Main Menu is used only to remove a master record and all of its assignment records from **IRISMAST.DBF** and **IRISASGN.DBF**.

4.7.1 **Deleting Resident Assignments**

To delete one or more existing assignment records for a particular I/R, use the Change data procedure (Option 3 from the IRIS Main Menu) and delete the FROM date of the assignments you wish to remove. Any assignment can be deleted as long as it is not the only assignment for that I/R in the current reporting period.

4.7.2 **Deleting Resident Master Records**

To delete all data in the current reporting period for a particular I/R, press **<4>** at the IRIS Main Menu and then execute the search procedure in section 4.4 to locate the I/R whose data you want to delete. When you have located the I/R, the data will be displayed on the Intern/Resident Data Entry Screen. IRIS will ask you to confirm that you really want to delete these data, and if you do, it removes them from their respective databases.

4.7.3 **Notes on Deleting Data**

Deleting data is really a two step process. Whether you have deleted all of the data for an I/R or just one or more assignment records, the same procedures apply. When IRIS deletes a record it does not actually remove it from the file. Rather, it "flags" the record so that future processing proceeds as though the record were not present.

The process of physically removing records is time consuming, and it leaves both your data and your index files vulnerable to damage from instantaneous power interruptions. Thus records are only physically removed when you exit from the program. At that time all records flagged in all IRIS databases during your work session are removed in one, efficient operation. This is also referred to as "packing" the files.

4.8   Importing Resident Data from External Data Sources

As an alternative to entering data from the keyboard, intern/resident data can be imported electronically from files created by other programs or downloaded from other computers. Note, however, that importing data, while freeing the user of tedious data entry tasks, does not in any way loosen IRIS' data entry edit requirements. All data imported into IRIS must pass the same stringent edits as data entered from the keyboard. For example, IRIS will not import a master record unless it is accompanied by at least one assignment record, and multiple assignment records are subject to the same tests as when they are keyed in.

IRIS' import capability parallels the import capability of dBase III PLUS. Specifically, data may be imported in three formats:

-       SDF (ASCII) files, in which every record is the same length and every field corresponds exactly, in width, to every field in the IRIS database into which the data are imported. In an ASCII file, each field must be appropriately padded with zeroes or blanks whenever a data value does not completely fill its field, but there are no spaces or delimiters between fields. Character fields are typically left adjusted and padded with blanks to the right of the data. Numeric fields are always right adjusted and may be padded with either blanks or zeroes.

-       Delimited text files, in which each data element is in quotes, and separated by commas. Data elements and records are of variable length, depending on what the data look like, and there is no need to pad insignificant columns in a field. Note that in each record of a delimited file, the data elements must occur in the same order as in the IRIS database into which the data are to be imported, and any data value that is too large to fit in its field is truncated.

-       dBASE compatible databases whose structures are identical to **IRISMAST.DBF** and **IRISASGN.DBF.**

When you program the system that creates the import files, be sure to include all of the edit requirements described in section 4.3.

To begin the import procedure, press **<1>** at the IRIS Main Menu. This brings up the brief selection menu:

```
╔══════════════════════════════════════╗
║  <1> Add Records from Keyboard        ║
║                                        ║
║  <2> Import/Append External Data       ║
╚══════════════════════════════════════╝
```

Press <2> to begin the import procedure and display the next menu:

```
╔═══════════════════════════════════════════════╗
║        IMPORTING/APPENDING EXTERNAL DATA        ║
╠═══════════════════════════════════════════════╣
║  <1> Import IRIS Data in SDF (ASCII) Format     ║
║  <2> Import IRIS Data in Delimited Text Format  ║
║  <3> Append IRIS Data in DBF Format             ║
╠═══════════════════════════════════════════════╣          WARNING: This process
║  <4> Evaluate and Edit Imported/Appended Data   ║           requires that a Printer
║  <5> Print Report of Evaluation and Edit        ║              be on Line!
║  <6> Merge Current and Imported/Appended Data   ║
╠═══════════════════════════════════════════════╣
║  <X> Exit                                       ║
╚═══════════════════════════════════════════════╝


    SELECT OPTION FROM LIST ======>



    {Press <F1> for Help}



    NOTE: The Evaluation Report shows the Current Status of Imported or
      Appended Records that have not yet been merged into IRISMAST.DBF.
      Records that have already been merged will not appear in the Report.
```

To import data, you must execute step 1, 2, **or** 3, and then each of steps 4, 5, **and** 6, in that order. As the menu screen warns, you must have a printer on line.

4.8.1   Overview of the Import Procedure

Regardless of the import format you select, your files must conform to the dBASE file structures of **IRISMAST.DBF** and **IRISASGN.DBF**. Each field in an SDF ASCII file should conform exactly to the corresponding dBASE structure below; each field in a delimited text file should be no longer than the corresponding fields below. Note that all of the numeric fields are integers.

NEW Structure for table **IRISASGN.DBF:**

Field Name	Type	Length	Usage
PROVNUMBER	CHARACTER	6	999999
SSN	CHARACTER	10	A999999999
FYBEGIN	DATE	8	mm/dd/yy
TIMEPERC	NUMERIC	3	999
IMEPERC	NUMERIC	3	999
GMEPERC	NUMERIC	3	999
ASGNBEGDAT	DATE	8	mm/dd/yy
ASGNENDDAT	DATE	8	mm/dd/yy
ARESYEAR	NUMERIC	1	9
ARESTYPE	CHARACTER	4	9999

NEW Structure for table **IRISMAST.DBF:**

Field Name	Type	Length	Usage
SSN	CHARACTER	10	A999999999
FNAME	CHARACTER	14	AAAAAAAAAAAAAA
MNAME	CHARACTER	1	A
LNAME	CHARACTER	20	AAAAAAAAAAAAAAAAAAAA
EMPLOYER	CHARACTER	50	AAAAAAAAAAAAAAAAAAAAAA...
RESTYPCODE	CHARACTER	4	9999
RESYEAR	NUMERIC	1	9
MEDSCHOOL	CHARACTER	5	99999
MSGRADDATE	DATE	8	mm/dd/yy
FORCERTDAT	DATE	8	mm/dd/yy
PROVNUMBER	CHARACTER	6	999999
FYBEGIN	DATE	8	mm/dd/yy
FYEND	DATE	8	mm/dd/yy
CREATEDATE	DATE	8	mm/dd/yy
MODIFYDATE	DATE	8	mm/dd/yy

Until now, these instructions have used the word "import" in a very general way. It is more precise, technically to distinguish between "importing" unformatted or delimited text files and "appending" data that is already in dBase format. For most users this distinction can be ignored. It is mentioned here to avoid confusing users who have experience with database terminology.

If you elect to import data from an ASCII or text file, and you have access to database software that is "dBase III PLUS" compatible, we strongly urge you to test your approach manually before running the IRIS import procedures. Create two temporary databases using the file structures above and try importing a few test records interactively, with either the APPEND FROM . . . SDF or APPEND FROM . . . DELIMITED command, as appropriate. Do not try to import your data into IRIS until you can create reasonable looking databases in this manner.

Loading data into IRIS from an external file is a four step process:

- getting the data from the import file into the system;

- performing all IRIS edits on every imported record;

- reviewing the results of the data evaluation (optional);

- appending the records that pass the edits into **IRISMAST.DBF** and **IRISASGN.DBF**.

Each imported **IRISMAST.DBF** record can have four dispositions:

- it can be a <u>new</u> IRIS record that passes all the edits. Note that the definition of <u>a new IRIS record is one that does have the same values of I/R social security number, provider number, and fiscal year start date as any existing record in</u> **IRISMAST.DBF**;

- it can be a <u>replacement</u> for an existing IRIS record - that is, it must match an existing **IRISMAST.DBF** in I/R social security number, provider number, and fiscal year start date;

- it can fail one or more edits and remain in an intermediate file indefinitely;

- it can contain a fatal error and be discarded.

The following sections provide additional details.

4.8.2   <u>Importing IRIS Data</u>

When you press **<1>** from the Importing/Appending External Data Menu, IRIS assumes that you have previously created two ASCII files that are accessible on either a diskette/CD or hard drive. IRIS expects the two files to be named **IMPMAST.TXT** and **IMPASGN.TXT**, which are structured based on **IRISMAST.DBF** and **IRISASGN.DBF**, respectively. You may use different file names, however.

When you press **<2>** from the Importing/Appending External Data Menu, IRIS' expectations are identical, except that **IMPMAST.TXT** and **IMPASGN.TXT** are delimited text files instead of ASCII files. When you press **<3>** IRIS expects the two import files to be dBASE III PLUS compatible database files named **IMPMAST.DBF** and **IMPASGN.DBF**.

To facilitate importing data, IRIS includes two pairs of database shells structured like **IRISMAST.DBF** and **IRISASGN.DBF**, except for the addition of a STATUS field, which tells IRIS how the program edits resolved each imported record. The first pair, **MSHELL.DBF** and **ASHELL.DBF**, receives the imported data. The second pair, **MSHELL2.DBF** and **ASHELL2.DBF**, capture the records from **MSHELL.DBF** and **ASHELL.DBF** that

successfully pass the data evaluation procedure (section 4.8.3). The final merge brings records from **MSHELL2.DBF** and **ASHELL2.DBF** into **IRISMAST.DBF** and **IRISASGN.DBF** (section 4.8.5).

Records that do not pass the evaluation procedure remain in **MSHELL.DBF** and **ASHELL.DBF** either until they pass in a future run or they are erased by the user prior to a new import. The import procedure begins by checking whether **MSHELL.DBF** and **ASHELL.DBF** are empty. If they are not, IRIS offers to print the records currently in the shell files, erase them, or proceed with the import, or any combination of these choices.

The import procedure continues by establishing the names and locations of the import files. For example, if an ASCII file is to be imported, IRIS displays the prompts:

```
   The SDF File from which records will be IMPORTed into IRISMAST.DBF is:


      on Drive:__
      in Directory (Path MUST end with "\"): _____
      named: IMPMAST.TXT
```

After the user has entered/confirmed the import file name for the master records, IRIS repeats the process for the assignment records to be imported. Finally, IRIS loads the data into **MSHELL.DBF** and **ASHELL.DBF**.

4.8.3   Evaluating Import Data

The data in **MSHELL.DBF** and **ASHELL.DBF** must pass the same edits as data entered from the keyboard. Only records that successfully pass the Evaluate and Edit Imported/Appended Data Procedure can be merged into **IRISMAST.DBF** and **IRISASGN.DBF**.

The evaluation and edit procedure performs two kinds of tests on each master record and its corresponding assignment records. First, IRIS tests for fatal errors:

- Each **MSHELL.DBF** record must be accompanied by at least one assignment record in **ASHELL.DBF**.

- Each assignment record in **ASHELL.DBF** must have the same social security number and FY start date as one and only one record in **MSHELL.DBF**.

- An imported record cannot be added to the master file if its key elements (resident's social security number, provider number, and fiscal year start date) have values that are identical to any existing **IRISMAST.DBF** record.

Two records imported together may not have the same key field values.

Records that fail any of these tests are discarded.

Qualifying records are then evaluated against the same edit criteria that are discussed in section 4.3. As each record in **MSHELL.DBF** is evaluated, its STATUS field is flagged to indicate the result of the edits. You will never see the STATUS field explicitly on the screen. It is included in this discussion to aid in your understanding of this critical process. The IRIS edits have four ways of resolving a record:

- the record is an acceptable <u>new</u> record - that is, the **MSHELL.DBF** record and its associated **ASHELL.DBF** records passed all edits; and it did not match a master record already in **IRISMAST.DBF** (STATUS=0);

- the record is an acceptable <u>replacement</u> for an existing **IRISMAST.DBF** record - that is, the **MSHELL.DBF** record and its associated **ASHELL.DBF** records passed all edits; and, it matches a master record already in **IRISMAST.DBF**; and, there were no unresolvable conflicts in the values of the key elements in the matched records (STATUS=1);

- the **MSHELL.DBF** record and/or its associated **ASHELL.DBF** records contained no fatal errors, but failed at least one of the IRIS edits (STATUS=8);

- the **MSHELL.DBF** record contained a fatal error and will be discarded (STATUS=9).

New or replacement records that pass the edits (STATUS=0 or 1) are transferred to **MSHELL2.DBF** and **ASHELL2.DBF**, and marked "Deleted" in **MSHELL.DBF** and **ASHELL.DBF**. Records with fatal errors (STATUS=9) are marked "Deleted" in **MSHELL.DBF** and **ASHELL.DBF** and will be discarded during the final merge. Records that fail at least one edit criterion but contain no fatal errors (STATUS=8) simply remain in **MSHELL.DBF** and **ASHELL.DBF**.

Records that are marked for deletion at this time are physically erased after the final merge procedure (section 4.8.5), and the remaining records in **MSHELL2.DBF** and **ASHELL2.DBF** are copied to **IRISMAST.DBF** and **IRISASGN.DBF**. Consequently, all records in **MSHELL.DBF** and **ASHELL.DBF** remain visible to IRIS and can be displayed in the evaluation report (section 4.8.4).

At the end of the merge procedure, all the records that passed the edits will have been merged into **IRISMAST.DBF** and **IRISASGN.DBF** and erased from **MSHELL.DBF** and **ASHELL.DBF**; records with fatal errors will have been erased; and records with pending edit exceptions will still be in **MSHELL.DBF** and **ASHELL.DBF**.

This last group of records (STATUS=8) can be dealt with in two ways. The information needed to satisfy the edits can be gathered and the records can be reprocessed the next time the evaluation is executed. The evaluation can be rerun just for the remaining records, or after a new group of imported records is added to **MSHELL.DBF** and **ASHELL.DBF**. Alternatively, these records can be corrected in the user's system and included in the next import group, in which case the user would tell IRIS to purge anything still in **MSHELL.DBF** and **ASHELL.DBF** at the beginning of the import procedure.

To begin the evaluation procedure press **<4>**. As each record in **MSHELL.DBF** is evaluated, the I/R's social security number and name are displayed on the screen. You can instruct IRIS to terminate the evaluation whenever a new record appears in the list.

The evaluation proceeds as follows:

(1) If there is not at least one **ASHELL.DBF** record associated with the current **MSHELL.DBF** record, IRIS sets STATUS to 9, marks the record "Deleted", and displays the message:

    No Assignment Records found - Master Record REJECTED.

(2) If there is a record already in **IRISMAST.DBF**, with the same I/R social security number, provider number, and fiscal year start date, but the residency type and year do not match the values in the imported record, the relevant data are displayed in a message window, and the user is offered an opportunity to resolve the conflict. If the conflict cannot be resolved, IRIS sets STATUS to 9 and marks the record "Deleted".

(3) If steps (1) and (2) found no fatal errors the imported data in **MSHELL.DBF** and **ASHELL.DBF** are displayed on the IRIS entry screen as in section 4.6. If the **MSHELL.DBF** record matched an existing **IRISMAST.DBF** record the existing assignments are shown along with the imported assignments, with an asterisk (*) attached to the existing assignments.

(4) IRIS begins applying its data edits. If the **MSHELL.DBF** record is new the edit checks are applied just as they are during keyboard entry, as described in section 4.3. If the **MSHELL.DBF** record is not new, the edit checks are combined with consistency checks between the data found in the **MSHELL.DBF** and **IRISMAST.DBF** records. Whenever an error or inconsistency is detected it is displayed in an information window, and the user is given a chance to resolve the error. The first time an error cannot be resolved, STATUS is set to 8 and IRIS moves to the next record in **MSHELL.DBF**. The following is a summary of the data evaluation:

-       the social security number is validated if the imported record is new. If it is not new, the social security number has already been matched to one that was validated previously;

- the I/R's name, employer's name, medical school, month of graduation, and foreign status are validated, and if the record is not new, the corresponding fields in the matched **IRISMAST.DBF** record is checked for consistency;

- the assignment records are edited as in section 4.6. The difference here is primarily in the situations that may arise. For example, if the imported master record is not new, the data may contain assignments that are identical to data already in **IRISASGN.DBF**. The IRIS edits treat these as overlapping assignments and you must delete the duplicates before IRIS will pass the data.

Any record that successfully passes all the edits will be assigned a STATUS of 0 for new records and 1 for matching records, and a message will briefly appear at the bottom of the screen, informing you either that the record can be appended to the IRIS files or will replace existing matching records. If no errors are found, IRIS will proceed to the next record with no interaction required by the user.

The user can terminate the evaluation when the record currently being evaluated is finished by pressing <**F10**> at any time. If the evaluation is terminated before the last **MSHELL.DBF** record is processed, it can be rerun at any time. The next run will process any records not evaluated during a previous run, as well as every record that began with STATUS=8 from a previous run.

To summarize, the Data Evaluation Procedure has the following results:

- Records with STATUS=0 or STATUS=1 have been appended to **MSHELL2.DBF** and **ASHELL2.DBF**, and have been marked deleted, but are physically still present in **MSHELL.DBF** and **ASHELL.DBF**.

- Records with STATUS=9 have been marked deleted, but are physically still present in **MSHELL.DBF** and **ASHELL.DBF**.

- Records with STATUS=8 remain in **MSHELL.DBF** and **ASHELL.DBF**, unmarked.

4.8.4   Printing a Report of the Evaluation of Import Data

Press <**5**> to print an evaluation report. The report includes every record in **MSHELL.DBF** at the time the report is created, whether it is marked "Deleted" or not. The report has four sections, one for each STATUS category. The evaluation report procedure runs without any further input by the user, displaying progress reports on the screen.

Since Procedure <6> (merging the imported data into the IRIS files) erases the records that are marked "Deleted" from **MSHELL.DBF**, the time at which an evaluation report is created determines its contents. A report executed after Procedure <4> is run but before Procedure <6>

will include every record included in the Evaluation Procedure. A report executed after Procedure <6> is run will show only the records that did not pass all of the edits.

4.8.5   Merging Imported Data into IRISMAST.DBF and IRISASGN.DBF

Press **<6>** to merge imported data records that have passed all IRIS edits into **IRISMAST.DBF** and **IRISASGN.DBF**. The merge procedure operates on whatever is in **MSHELL2.DBF** and **ASHELL2.DBF** when the merge is executed, so it is not necessary to wait until every record has passed the edits. The merge procedure adds the data for which STATUS=0 and replaces the records in which STATUS=1. After each execution of the Merge Procedure, the entire contents of **MSHELL2.DBF** and **ASHELL2.DBF**, and the records marked "Deleted" in **MSHELL.DBF** and **ASHELL.DBF** are erased.

WE STRONGLY RECOMMEND THAT YOU GENERATE A VALIDATION REPORT BEFORE MERGING DATA, EVERY TIME YOU RUN A NEW EVALUATION.

5. Creating a Disk/CD that Satisfies CMS Reporting Requirements

When all of the intern/resident data for a fiscal reporting period have passed all of the IRIS edits the CMS report disk/CD can be created. Although a skilled programmer can surely find a way to bypass the edits and still create the report disk/CD, doing so would certainly be counterproductive. CMS applies the same edits to all submitted files, and returns any file that fails them to the hospital for correction. The edits have been included in IRIS to reduce the hospitals' reporting burden.

In addition to validating the data when they are received from the fiscal intermediaries, CMS edits the national database to assure that no I/R is counted as more than one FTE, as required by the regulations cited in section 3.1. Whenever CMS' edits detect that more than 100% of an I/R's time has been reported in total, the data will be returned to all of the hospitals involved. It is important that hospitals that share an I/R's time coordinate their reporting in advance to avoid overreporting. WARNING: do not purge any resident data until your report disk/CD has been accepted by CMS!

To create the CMS report disk/CD, press **<7>** at the IRIS Main Menu. IRIS assumes that the report disk/CD is to include all records that include the provider number and fiscal reporting period specified in the IRIS global variables in the administrative data file (section 3.3.1). The user confirms or changes those variables, and requests that the process begin.

The user must specify the drive letters from which and to which the report data are to be copied. IRIS then identifies the data that are to be reported and asks you to insert your disk/CD into its drive. IRIS analyzes the space requirements and informs you that:

```
Space available on the Diskette in Drive A (Bytes): 1,135,721

Space required by report databases (Bytes): 87,479
```

In the unlikely event that more than one disk/CD is required, IRIS informs you and then begins to create the report databases. If another disk/CD is required IRIS will prompt you and redisplay the space required and the space available.

The CMS report file names are based on the hospital's Medicare provider number, with the master records beginning with the letter "M" and the assignment records beginning with "A". Following the example used in chapter 4, a complete report disk/CD would include the files **M3130099.DBF**, and **A3130099.DBF**.

6. Reviewing the Data that have been Entered

Pressing **<6>** at the IRIS Main Menu causes IRIS to create summary reports of the resident data records that are currently stored in **IRISMAST.DBF** and **IRISASGN.DBF**. These reports enable you to review your data before preparing the CMS report disks/CDs, although you may generate reports at any time for any data in your files. Each summary report covers one provider number and one fiscal reporting year, and may include every intern/resident in the database for that provider and year, or be limited to a specified group.

This procedure begins with a report setup screen on which the user specifies the contents of the report. The screen is shown with its default values below:

```
              IRIS SUMMARY REPORTS FOR PROVIDER 130099
                REPORTING PERIOD: 07/01/93 - 06/30/94
_____

  Report Specifications:

      Enter "1" to Print Summary Reports, "2" to Display on Screen: 1

      Enter "1" to Report Physicians by Residency Type, "2" by Medical School:
      (Leave Blank for ungrouped Alphabetical listing)

      Restrict Report to:

      Limit Report to Data Created or Changed between: 07/01/93 and 05/17/94

      Include Rotational Assignment Detail in Reports (Y/N)? Y
```

Begin by accepting or changing the first two specifications. If you choose to group physicians by residency code or to list them alphabetically without subgrouping, you can also request that the report be <u>limited</u> to physicians with residency codes in any specified range. If you choose to group by medical school, you can request that the report be limited to medical school codes within a specified range. In the example above, after the user specifies no grouping of physicians, IRIS modifies the third report specification to read:

Restrict Report to: Residency Codes in the range 0000 to 9999
The default values "0000" and "9999" have the effect of not restricting the report at all. To limit the report to physicians in a single residency type, enter the same residency code in both fields.

The fourth specification allows you to restrict data based on the date on which a master record was created or last updated, with the default values being the first day of the fiscal reporting period as previously specified by the user (section 3.3.1) and the current date. These dates need not reflect the boundaries of the fiscal reporting period, however. This specification is intended to permit the user to review all data entered or review only data entered or changed on a particular date or during a specified time interval.

After you have set up your report, IRIS redisplays your selections and asks for confirmation.

```
                      IRIS SUMMARY REPORTS FOR PROVIDER 130099
                      REPORTING PERIOD: 07/01/93 - 06/30/94
───────────────────────────────────────────────────────────────────────

Report Specifications:

    Summary Report will be Printed

    Physicians will be grouped by Residency Type

    Range of Physicians reported is: Unrestricted

    Report will include Data Entered or Changed between: 05/08/94 and 05/17/94

    Report will include data on Rotational Assignments



                              Continue (Y/N)?
```

Note that the summary report procedure utilizes the provider number and fiscal reporting period stored in the IRIS global variables. To generate a report for a different fiscal year or provider number, make the appropriate change in the administrative data file (section 3.3.1) before requesting the summary report.

7. <u>Attachments</u>

ATTACHMENTS BEGIN NEXT PAGE.

7.1   **Installation of IRISV3 with IRIS95**
         IRIS, Version 3 - Release Date 12/97

The Centers for Medicare & Medicaid Services (CMS), in response to comments and suggestions from fiscal intermediaries and providers who use the IRIS95 software to report data on interns and residents, has revised the software to make its data more useful and accurate. The new release is known as IRIS, Version 3. The name of the program has been changed from IRIS95.EXE to IRISV3.EXE. Version 3 is the first part of a general re-design effort that will culminate in the release of a fully functional WINDOWS application that will assure consistency between IRIS data and the information filed with the corresponding sections of the CMS Cost Report. Version 3 was released as an interim upgrade because there were several essential changes that could not wait for the final re-design to be completed. For this reason, you may also hear Version 3 referred to as the "Quick-Fix" version.

The new release requires several changes to IRIS' data (DBF) files, and a conversion procedure must be executed before IRISV3 can be used. We have done everything possible to make this a turnkey activity, however. The new release includes a number of files that can simply be copied over their older counterparts, and a conversion utility program called IR95UPDT.EXE, which performs the necessary changes to the other table structures and the data for you. If you read and follow the simple instructions that follow carefully, you should have no difficulty with the conversion.

The following sections:

- summarize the differences between IRIS95 and IRISV3;

- provide instructions for installing IRISV3 and using IR95UPDT;

- address conversion of data files that will be imported into IRISV3;

- describe what to do if your December 31, 1997 IRIS data has already been processed in the old format.

Changes made to IRIS95 in Version 3, known as the "Quick-Fix" Initiative*

- Graduation dates and foreign graduate certification are now entered as complete dates rather than as months and years.

- All dates are year 2000 enabled.

- The program has been modified to permit:

     -     up to 60 rotations per physician per fiscal year;

*- Also shown in Part I of IRISV3, Operating Instructions

- one day rotations;

- entering a graduation date within the reporting fiscal year, as long as it precedes all rotations recorded for that physician -- rotations will be permitted to begin on or after the physician's graduation date;

- for foreign medical graduates, entering a certification date within the reporting fiscal year, as long as it precedes all rotations recorded for that physician, and occurs on or after the graduation date -- rotations will be permitted to begin on or after the certification date; and

- hyphens in physician name fields.

- A non-fatal warning edit has been added to alert providers when an IME% that exceeds the GME% for a rotation has been entered.

- Two new fields have been added to the assignment (rotation) records. One indicates which year of residency the current rotation attaches to. The second indicates the current residency code during the rotation. (NOTE: the original residency code, on which the number of years of the physician's eligibility is based, and the number of years completed as of July 1 or the reporting FY remain fields in the physician's master record.)

- The Employer field in the master record will be retained as it is, and it has an accessible Help screen. The contents are not edited by IRIS, and providers have used this field for employer identification.

- The Foreign Graduate question and the FOREIGN field in the physician's master record have been eliminated. Instead, the value will be inferred from the medical school code. The foreign graduate's certification date will be requested whenever medical school code "99999" is used.

- Medical school code "99998" has been added to cover all foreign dental schools and other updates to the table of medical school codes have been made.

- A tenth (prefix) character has been added to the social security number field to distinguish between American and Canadian identifying numbers. The prefix will default to "U" for United States graduates, but will be able to be overridden to "C" for Canadians.

- The table of residency codes has been updated.

- Help screens have been added to cover all new fields and existing help screens were modified to include any new text submitted by the Instructions Subgroup.

- A utility program is included with the new IRIS program that:

-        updates data structures;

-        converts graduation and certification dates to their new formats;

-        back-fills the new fields in records entered before the new version of IRIS was received
         by the provider; and

-        adds the tenth character to the social security number in those records.

Note that the new assignment record fields match current residency year and specialty code data with specific rotations, while the residency year charged for the current fiscal reporting year and the base residency code of the physician are stored in the physician's master record for the fiscal year. Hospitals may, if they wish, go back and edit records already in the system to add the new data. If they prefer not to do that, they can use this utility program to fill the new fields in the assignment records with the same values that appear in the master records. Individual records can still be edited after the utility program is run.

Installation of IRISV3.EXE and the use of IR95UPDT.EXE

The utility program, IR95UPDT.EXE, modifies existing intern and resident (IR) data files to make them usable with IRISV3, with NO other changes required by the user.

The utility program does the following:

•   Modifies the SSN field in both the master and assignment files and fills the first character
         with either all "U"s, or "U" or "C" at the user's discretion.

•   Adds the ARESYEAR and ARESTYPE fields to the assignment file and fills them with
         values from the master record. ARESYEAR can either be filled with the value of RESYEAR
         in the master record or the user may enter an anniversary date for each IR so the program can
         increment ARESYEAR at the appropriate time.

•   Modifies the MSGRADDATE and FORCERTDAT fields in the master record and converts
         all the mm/yy values to mm/01/yyyy.

WARNING: It is absolutely essential that the following instructions be strictly adhered to.
IR95UPDT has been thoroughly tested, and should handle your data file conversions flawlessly. However, personal computers sometimes suffer from events beyond the control of the user (power outages, lightning strikes, and other unforeseen events) and these instructions are designed to protect you from a catastrophic loss of data.

Installation Instructions

These instructions assume that you run on **Drive C**, and that your IRIS95 program resides in **a directory named C:\IRIS95**. If you run on a different drive, simply substitute its drive letter (D, E, F, and so on) for C in what follows.

(1)   Make sure that your primary IRIS data files (IRISMAST.DBF and IRISASGN.DBF) are backed up in a safe place before you begin. This can mean copied onto a diskette/CD, in a clean directory, in a shared directory on your network, or on a tape.

(2)   Create a new directory on your operating drive, called IRISV3. Copy the entire contents of the C:\IRIS95 directory into the new IRISV3 directory.

(3)   At the "C:\IRISV3>" prompt, insert your Update IRISV3 diskette/CD in drive A and type the command:

       A:\IRV3INST<Enter>

At each "Overwrite (y/n)?" prompt, type:

       y<Enter>

The updated program is now installed.

(4)   At the "C:\IRISV3>" prompt, type:

       IR95UPDT<Enter>

This program consists of three functions, each with a self containing screen of explanatory information. Each may only be run once, and each will prevent you from re-running it if you attempt to repeat it. Simply run the three functions in order, and your data tables will be converted for use with IRISV3.

(5)   Before running the IRISV3 program, the following program initialization steps **must** be performed the first time you run IRISV3. <u>Do not attempt to execute any other IRIS functions until this step is complete</u>. Before proceeding, <u>make sure the **<Caps Lock>** key is "On"</u>.

To initialize the program from the "C:\IRISV3>" prompt, type

       IRISV3 <Enter>

Select "Reference Files/Data Management" from the main menu by pressing **<5>** and run each of the first four procedures in the next menu that appears. The Reference Files menu reappears after each procedure is completed. (The Reference Files menu is discussed in detail in section 3.3):

- first, select "Rebuild Data Indexes" by pressing **<3>**. This causes IRIS to create "index files" which enable the program to search and display data in various orders that are required by the different program functions (section 3.3.3);

- second, select "Generate Data Help Windows" by pressing **<4>**. This causes IRIS to create the text screens that are used when the help key is pressed during program execution (section 3.3.4);

- third, select "Set up Administrative Data" by pressing **<1>**; this tells IRIS that you are entering (at a minimum) the requested information about the provider and the fiscal reporting period (section 3.3.1);

- fourth, select "Employer Names" by pressing **<2>** and enter the list of employer names for the resident data selection list. If you have followed the previous steps in order, the employer names list will initially contain only the provider name that was entered in the previous step (section 3.3.2).

(6)   You are now ready to run IRISV3. Use it as you previously used IRIS95. It has nearly the same look and feel of the current version, except where the modifications described earlier required changes in design.

Special Instructions for Importing data into IRIS

Just as it was necessary to modify IRISMAST.DBF and IRISASGN.DBF so that they would conform to IRISV3, providers that use one of IRIS' data import procedures will have to change the structures of the data files that they import before they execute the import procedure. Just as it was necessary to carefully format the import files in the earlier release, to assure that data were appended properly, it is equally important to adjust those formats for the new release. To assist with this process the old and new formats (files structures) are displayed on the following pages. Although the conversion utility, IR95UPDT.EXE, discussed above converts the structures of the IRIS data tables automatically, it normally cannot do so for the files from which you import data.

OLD Structure for table **IRISMAST.DBF**:

Field Name	Type	Length	Usage
SSN	CHARACTER	9	999999999
FNAME	CHARACTER	14	AAAAAAAAAAAAAA
MNAME	CHARACTER	1	A
LNAME	CHARACTER	20	AAAAAAAAAAAAAAAAAAAA
EMPLOYER	CHARACTER	50	AAAAAAAAAAAAAAAAAAAAAA....
RESTYPCODE	CHARACTER	4	9999
RESYEAR	NUMERIC	1	9
MEDSCHOOL	CHARACTER	5	99999
MSGRADDATE	CHARACTER	4	mmyy
FOREIGN	CHARACTER	1	A
FORCERTDAT	CHARACTER	4	mmyy
PROVNUMBER	CHARACTER	6	999999
FYBEGIN	DATE	8	mm/dd/yy
FYEND	DATE	8	mm/dd/yy
CREATEDATE	DATE	8	mm/dd/yy
MODIFYDATE	DATE	8	mm/dd/yy

NEW Structure for table **IRISMAST.DBF**:

Field Name	Type	Length	Usage
SSN	CHARACTER	10	A999999999
FNAME	CHARACTER	14	AAAAAAAAAAAAAA
MNAME	CHARACTER	1	A
LNAME	CHARACTER	20	AAAAAAAAAAAAAAAAAAAA
EMPLOYER	CHARACTER	50	AAAAAAAAAAAAAAAAAAAAAA...
RESTYPCODE	CHARACTER	4	9999
RESYEAR	NUMERIC	1	9
MEDSCHOOL	CHARACTER	5	99999
MSGRADDATE	DATE	8	mm/dd/yy
FORCERTDAT	DATE	8	mm/dd/yy
PROVNUMBER	CHARACTER	6	999999
FYBEGIN	DATE	8	mm/dd/yy
FYEND	DATE	8	mm/dd/yy
CREATEDATE	DATE	8	mm/dd/yy
MODIFYDATE	DATE	8	mm/dd/yy

OLD Structure for table **IRISASGN.DBF**

Field Name	Type	Length	Usage
PROVNUMBER	CHARACTER	6	999999
SSN	CHARACTER	9	999999999
FYBEGIN	DATE	8	mm/dd/yy
TIMEPERC	NUMERIC	3	999
IMEPERC	NUMERIC	3	999
GMEPERC	NUMERIC	3	999
ASGNBEGDAT	DATE	8	mm/dd/yy
ASGNENDDAT	DATE	8	mm/dd/yy

NEW Structure for table **IRISASGN.DBF**

Field Name	Type	Length	Usage
PROVNUMBER	CHARACTER	6	999999
SSN	CHARACTER	10	A999999999
FYBEGIN	DATE	8	mm/dd/yy
TIMEPERC	NUMERIC	3	999
IMEPERC	NUMERIC	3	999
GMEPERC	NUMERIC	3	999
ASGNBEGDAT	DATE	8	mm/dd/yy
ASGNENDDAT	DATE	8	mm/dd/yy
ARESYEAR	NUMERIC	1	9
ARESTYPE	CHARACTER	4	9999

Note that although IRIS is now year 2000 enabled, date fields are still eight characters wide, including two slashes and a two digit year. "DBF" files always store years in date fields as 4 digit integers internally. The two digit year in the date format can be misleading in this regard. The reason we can use that format during the conversion is that there are not yet any dates in IRIS that extend past January 1, 2000. And for future dates, the program handles the century indicator invisibly to the user. The exceptions are the graduation and certification dates which will be entered from now onward with explicit four digit years, as "mm/dd/yyyy".

We recommend that the conversion of imported data be handled external to IRIS, either by manual manipulation of the files or by adjustments to the system that originally created them. Surely, the latter would have to be done for future reporting periods, anyway. During the conversion to the new version of IRIS, however, there is a way to use IR95UPDT to convert your imported data, but this method is not for everyone. We don't recommend using it unless you are confident in your ability to manage these files on your own. If you would like to try this approach, refer to the end of the next section.

Reformatting your import files with IR95UPDT.EXE

Users who feel confident in their ability to manipulate files manually can use IR95UPDT.EXE to modify their import data, if they were already formatted for the old IRIS95 by the time you received IRISV3. The procedure is not difficult once you realize that IR95UPDT can only modify files named IRISMAST.DBF and IRISASGN.DBF.

Thus, to modify your import files with IR95UPDT:

- Create a temporary directory on your hard drive, and copy your import files into that directory, while naming them IRISMAST.DBF and IRISASGN.DBF. If you name your temporary directory IMPORT, and your import files were originally named IMPMAST.DBF and IMPASGN.DBF, you will issue the DOS commands:

        COPY A:\IMPMAST.DBF C:\IMPORT\IRISMAST.DBF
        COPY A:\IMPASGN.DBF C:\IMPORT\IRISASGN.DBF

Of course, since you are not placing these files in the IRISV3 directory, they may be given the same names as your IRIS tables.

- Copy IR95UPDT.EXE into the IMPORT directory, and execute it there. It will now perform exactly the same operations on your import data, that it did on your IRIS data tables. But running IR95UPDT in the IMPORT directory has no effect on your original data tables because they are safely in another directory. IR95UPDT can only see files in the directory in which it is stored.

If you use this method be extremely cautious. The risks associated with using sets of identically named files in different directories should be obvious. **Do not attempt to do this unless you are sure you know what you are doing!**

If your December 31, 1997 IRIS data have already been processed using the old version of IRIS95 . . . .

. . . and you have followed the update installation instructions and the instructions for running IR95UPDT, above, you have already done everything you have to do, and you have lost nothing by entering your December 31, 1997 IRIS data early. You can now produce an IRIS diskette/CD to send to your fiscal intermediary by simply re-running the program function that creates the diskette/CD. Even if you have already submitted your disk/CD by the time you receive these instructions, the only duplicated work you will have to do is regenerating your submission disk/CD.

7.2   **Medical School Code Table**
(Codes 00102 through 06801 are copyrighted by the American Medical Association. See the bottom of this table on Page 7-16 for the use of these codes and the copyright notice.)

SCHOOL CODE	SCHOOL NAME	SCHOOL CITY	SCHOOL STATE
00102	UNIVERSITY OF ALABAMA SCHOOL OF MEDICINE	BIRMINGHAM	AL
00106	UNIVERSITY OF SOUTH ALABAMA COLLEGE OF MEDICINE	MOBILE	AL
00301	UNIVERSITY OF ARIZONA COLLEGE OF MEDICINE	TUCSON	AZ
00375	ARIZONA COLLEGE OF OSTEOPATHIC MEDICINE	GLENDALE	AZ
00401	UNIVERSITY OF ARKANSAS COLLEGE OF MEDICINE	LITTLE ROCK	AR
00502	UN OF CALIFORNIA, SAN FRANCISCO, SCH OF MEDICINE	SAN FRANCISCO	CA
00506	UN OF SOUTHERN CALIFORNIA SCHOOL OF MEDICINE	LOS ANGELES	CA
00511	STANFORD UNIVERSITY SCHOOL OF MEDICINE	STANFORD	CA
00512	LOMA LINDA UNIVERSITY SCHOOL OF MEDICINE	LOMA LINDA	CA
00514	UN OF CALIFORNIA, LOS ANGELES, SCHOOL OF MEDICINE	LOS ANGELES	CA
00515	UN OF CALIFORNIA, IRVINE, COLLEGE OF MEDICINE	IRVINE	CA
00518	UN OF CALIFORNIA, SAN DIEGO, SCHOOL OF MEDICINE	LA JOLLA	CA
00519	UN OF CALIFORNIA, DAVIS, SCHOOL OF MEDICINE	DAVIS	CA
00575	COLLEGE OF OSTEOPATHIC PHYSICIANS & SURGEONS	LOS ANGELES	CA
00576	COLLEGE OF OSTEOPATHIC MEDICINE OF THE PACIFIC	POMONA	CA
00577	TOURO UNIVERSITY COLLEGE OF OSTEOPATHIC MEDICINE	VALLEJO	CA
00702	UNIVERSITY OF COLORADO SCHOOL OF MEDICINE	DENVER	CO
00801	YALE UNIVERSITY SCHOOL OF MEDICINE	NEW HAVEN	CT
00802	UNIVERSITY OF CONNECTICUT SCHOOL OF MEDICINE	FARMINGTON	CT
01001	GEORGE WASHINGTON UNIVERSITY SCHOOL OF MEDICINE	WASHINGTON	DC
01002	GEORGETOWN UNIVERSITY SCHOOL OF MEDICINE	WASHINGTON	DC
01003	HOWARD UNIVERSITY COLLEGE OF MEDICINE	WASHINGTON	DC
01102	UNIVERSITY OF MIAMI SCHOOL OF MEDICINE	MIAMI	FL
01103	UNIVERSITY OF FLORIDA COLLEGE OF MEDICINE	GAINESVILLE	FL
01104	UNIVERSITY OF SOUTH FLORIDA COLLEGE OF MEDICINE	TAMPA	FL
01105	FLORIDA STATE UNIVERSITY COLLEGE OF MEDICINE	TALLAHASSEE	FL
01175	NOVA SOUTHEASTERN COLLEGE OF OSTEO MEDICINE	FT LAUDERDALE	FL
01201	MEDICAL COLLEGE OF GEORGIA	AUGUSTA	GA
01205	EMORY UNIVERSITY SCHOOL OF MEDICINE	ATLANTA	GA
01221	MOREHOUSE SCHOOL OF MEDICINE	ATLANTA	GA
01222	MERCER UNIVERSITY SCHOOL OF MEDICINE	MACON	GA
01401	UN OF HAWAII JOHN A. BURNS SCHOOL OF MEDICINE	HONOLULU	HI
01601	RUSH MEDICAL COLLEGE OF RUSH UNIVERSITY	CHICAGO	IL
01602	UNIVERSITY OF CHICAGO PRITZKER SCHOOL OF MEDICINE	CHICAGO	IL
01606	NORTHWESTERN UNIVERSITY MEDICAL SCHOOL	CHICAGO	IL
01611	UN OF ILLINOIS COL OF MED (CHI/PEOR/ROCK/CHM-URB)	ALL LOCATIONS	IL
01642	R FRANKLIN UN OF MED & SCI/CHICAGO MEDICAL SCHOOL	NORTH CHICAGO	IL
01643	LOYOLA UN OF CHICAGO, STRITCH SCHOOL OF MEDICINE	MAYWOOD	IL
01645	SOUTHERN ILLINOIS UNIVERSITY SCHOOL OF MEDICINE	SPRINGFIELD	IL
01676	CHICAGO COLLEGE OF OSTEOPATHIC MEDICINE	CHICAGO	IL

SCHOOL CODE	SCHOOL NAME	SCHOOL CITY	SCHOOL STATE
01720	INDIANA UNIVERSITY SCHOOL OF MEDICINE	INDIANAPOLIS	IN
01803	UNIVERSITY OF IOWA COLLEGE OF MEDICINE	IOWA CITY	IA
01875	UN OF OSTEOPATHIC MEDICINE AND HEALTH SCIENCES	DES MOINES	IA
01902	UNIVERSITY OF KANSAS SCHOOL OF MEDICINE (KC/WICH)	ALL LOCATIONS	KS
02002	UNIVERSITY OF LOUISVILLE SCHOOL OF MEDICINE	LOUISVILLE	KY
02012	UNIVERSITY OF KENTUCKY COLLEGE OF MEDICINE	LEXINGTON	KY
02075	PIKEVILLE COL, SCHOOL OF OSTEOPATHIC MEDICINE	PIKEVILLE	KY
02101	TULANE UNIVERSITY SCHOOL OF MEDICINE	NEW ORLEANS	LA
02105	LOUISIANA STATE UN SCHOOL OF MED IN NEW ORLEANS	NEW ORLEANS	LA
02106	LOUISIANA STATE UN SCHOOL OF MED IN SHREVEPORT	SHREVEPORT	LA
02275	UN OF NEW ENGLAND, COL OF OSTEOPATHIC MEDICINE	BIDDEFORD	ME
02301	UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE	BALTIMORE	MD
02307	JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE	BALTIMORE	MD
02312	UNIFORMED SERVICES UN OF THE HEALTH SCIENCES	BETHESDA	MD
02401	HARVARD MEDICAL SCHOOL	BOSTON	MA
02405	BOSTON UNIVERSITY SCHOOL OF MEDICINE	BOSTON	MA
02407	TUFTS UNIVERSITY SCHOOL OF MEDICINE	BOSTON	MA
02416	UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL	WORCESTER	MA
02501	UNIVERSITY OF MICHIGAN MEDICAL SCHOOL	ANN ARBOR	MI
02507	WAYNE STATE UNIVERSITY SCHOOL OF MEDICINE	DETROIT	MI
02512	MICHIGAN STATE UN COLLEGE OF HUMAN MEDICINE	EAST LANSING	MI
02576	MICHIGAN STATE UN COLLEGE OF OSTEOPATHIC MEDICINE	EAST LANSING	MI
02604	UNIVERSITY OF MINNESOTA MEDICAL SCHOOL	MINNEAPOLIS	MN
02607	UN OF MINNESOTA, DULUTH SCHOOL OF MEDICINE	DULUTH	MN
02608	MAYO MEDICAL SCHOOL	ROCHESTER	MN
02701	UNIVERSITY OF MISSISSIPPI SCHOOL OF MEDICINE	JACKSON	MS
02802	WASHINGTON UNIVERSITY SCHOOL OF MEDICINE	SAINT LOUIS	MO
02803	UN OF MISSOURI, COLUMBIA SCHOOL OF MEDICINE	COLUMBIA	MO
02834	SAINT LOUIS UNIVERSITY SCHOOL OF MEDICINE	SAINT LOUIS	MO
02846	UN OF MISSOURI, KANSAS CITY SCHOOL OF MEDICINE	KANSAS CITY	MO
02878	UN OF HEALTH SCIENCES, COL OF OSTEOPATH MEDICINE	KANSAS CITY	MO
02879	KIRKSVILLE COLLEGE OF OSTEOPATHIC MEDICINE	KIRKSVILLE	MO
03005	UNIVERSITY OF NEBRASKA COLLEGE OF MEDICINE	OMAHA	NE
03006	CREIGHTON UNIVERSITY SCHOOL OF MEDICINE	OMAHA	NE
03101	UNIVERSITY OF NEVADA SCHOOL OF MEDICINE	RENO	NV
03201	DARTMOUTH MEDICAL SCHOOL	HANOVER	NH
03305	UMDNJ-NEW JERSEY MEDICAL SCHOOL	NEWARK	NJ
03306	UMDNJ-R W JOHNSON MED SCHOOL (CAM/NEW BRUNS/PISC)	ALL LOCATIONS	NJ
03375	UMDNJ NEW JERSEY SCHOOL OF OSTEOPATHIC MEDICINE	STRATFORD	NJ
03401	UNIVERSITY OF NEW MEXICO SCHOOL OF MEDICINE	ALBUQUERQUE	NM
03501	COLUMBIA UN COLLEGE OF PHYSICIANS AND SURGEONS	NEW YORK	NY
03503	ALBANY MEDICAL COLLEGE OF UNION UNIVERSITY	ALBANY	NY
03506	STATE UN OF NEW YORK AT BUFFALO SCHOOL OF MED	BUFFALO	NY

SCHOOL CODE	SCHOOL NAME	SCHOOL CITY	SCHOOL STATE
03508	STATE UN OF NEW YORK DOWNSTATE MEDICAL CENTER	BROOKLYN	NY
03509	NEW YORK MEDICAL COLLEGE	VALHALLA	NY
03515	STATE UN OF NY HEALTH SCIENCE CENTER OF SYRACUSE	SYRACUSE	NY
03519	NEW YORK UNIVERSITY SCHOOL OF MEDICINE	NEW YORK	NY
03520	CORNELL UNIVERSITY MEDICAL COLLEGE	NEW YORK	NY
03545	UN OF ROCHESTER SCHOOL OF MEDICINE AND DENTISTRY	ROCHESTER	NY
03546	ALBERT EINSTEIN COLLEGE OF MEDICINE OF YESHIVA UN	BRONX	NY
03547	MOUNT SINAI SCHOOL OF MEDICINE OF NEW YORK UNIV	NEW YORK	NY
03548	STATE UN OF NY AT STONY BROOK SCHOOL OF MEDICINE	STONY BROOK	NY
03575	NEW YORK COLLEGE OF OSTEOPATHIC MEDICINE OF NYIT	OLD WESTBURY	NY
03601	UN OF NORTH CAROLINA CHAPEL HILL SCH OF MEDICINE	CHAPEL HILL	NC
03605	BOWMAN GRAY SCHOOL OF MEDICINE, WAKE FOREST UN	WINSTON-SALEM	NC
03607	DUKE UNIVERSITY SCHOOL OF MEDICINE	DURHAM	NC
03608	EAST CAROLINA UNIVERSITY SCHOOL OF MEDICINE	GREENVILLE	NC
03701	UNIVERSITY OF NORTH DAKOTA SCHOOL OF MEDICINE	GRAND FORKS	ND
03806	CASE WESTERN RESERVE UN SCHOOL OF MEDICINE	CLEVELAND	OH
03840	OHIO STATE UNIVERSITY COLLEGE OF MEDICINE	COLUMBUS	OH
03841	UNIVERSITY OF CINCINNATI COLLEGE OF MEDICINE	CINCINNATI	OH
03843	MEDICAL COLLEGE OF OHIO AT TOLEDO	TOLEDO	OH
03844	NORTHEASTERN OHIO UNIVERSITY COLLEGE OF MEDICINE	ROOTSTOWN	OH
03845	WRIGHT STATE UNIVERSITY SCHOOL OF MEDICINE	DAYTON	OH
03875	OHIO UNIVERSITY OF OSTEOPATHIC MEDICINE	ATHENS	OH
03901	UNIVERSITY OF OKLAHOMA COLLEGE OF MEDICINE	OKLAHOMA CITY	OK
03905	ORAL ROBERTS UNIVERSITY SCHOOL OF MEDICINE	TULSA	OK
03979	OKLAHOMA COL OF OSTEOPATHIC MEDICINE AND SURGERY	TULSA	OK
04002	OREGON HEALTH SCIENCES UN SCHOOL OF MEDICINE	PORTLAND	OR
04101	UNIVERSITY OF PENNSYLVANIA SCHOOL OF MEDICINE	PHILADELPHIA	PA
04102	JEFFERSON MEDICAL COLLEGE OF THOMAS JEFFERSON UN	PHILADELPHIA	PA
04107	MEDICAL COLLEGE OF PENNSYLVANIA	PHILADELPHIA	PA
04109	HAHNEMANN UNIVERSITY COLLEGE OF MEDICINE	PHILADELPHIA	PA
04112	UNIVERSITY OF PITTSBURGH SCHOOL OF MEDICINE	PITTSBURGH	PA
04113	TEMPLE UNIVERSITY SCHOOL OF MEDICINE	PHILADELPHIA	PA
04114	PENNSYLVANIA STATE UNIVERSITY COLLEGE OF MEDICINE	HERSHEY	PA
04115	DREXEL UNIVERSITY COLLEGE OF MEDICINE	PHILADELPHIA	PA
04177	PHILADELPHIA COLLEGE OF OSTEOPATHIC MEDICINE	PHILADELPHIA	PA
04178	LAKE ERIE COLLEGE OF OSTEOPATHIC MEDICINE	ERIE	PA
04201	UNIVERSITY OF PUERTO RICO SCHOOL OF MEDICINE	SAN JUAN	PR
04202	PONCE SCHOOL OF MEDICINE	PONCE	PR
04203	UNIVERSITY CENTRAL DEL CARIBE ESCUELA DE MEDICINA	BAYAMON	PR
04204	ESCUELA DE MED SAN JUAN BAUTISTA	CAGUAS	PR
04301	BROWN MEDICAL SCHOOL	PROVIDENCE	RI
04501	MEDICAL UN OF SOUTH CAROLINA COLLEGE OF MEDICINE	CHARLESTON	SC
04504	UNIVERSITY OF SOUTH CAROLINA SCHOOL OF MEDICINE	COLUMBIA	SC

SCHOOL CODE	SCHOOL NAME	SCHOOL CITY	SCHOOL STATE
04601	SANFORD SCHOOL OF MEDICINE OF UN OF SOUTH DAKOTA	VERMILLION	SD
04705	VANDERBILT UNIVERSITY SCHOOL OF MEDICINE	NASHVILLE	TN
04706	UNIVERSITY OF TENNESSEE COLLEGE OF MEDICINE	MEMPHIS	TN
04707	MEHARRY MEDICAL COLLEGE SCHOOL OF MEDICINE	NASHVILLE	TN
04720	E TENNESSEE ST UN QUILLEN COLLEGE OF MEDICINE	JHNSN CTY	TN
04802	UNIVERSITY OF TEXAS MEDICAL BRANCH AT GALVESTON	GALVESTON	TX
04804	BAYLOR COLLEGE OF MEDICINE	HOUSTON	TX
04812	UN OF TEXAS SOUTHWESTERN MEDICAL SCHOOL AT DALLAS	DALLAS	TX
04813	UN OF TEXAS MEDICAL SCHOOL AT SAN ANTONIO	SAN ANTONIO	TX
04814	UN OF TEXAS MEDICAL SCHOOL AT HOUSTON	HOUSTON	TX
04815	TEXAS TECH UN HSC, SCH OF MED (AMAR/LUB/EL PASO)	ALL LOCATIONS	TX
04816	TEXAS A & M UNIVERSITY COLLEGE OF MEDICINE	COLLEGE STATION	TX
04878	TEXAS COLLEGE OF OSTEOPATHIC MEDICINE	FORT WORTH	TX
04901	UNIVERSITY OF UTAH SCHOOL OF MEDICINE	SALT LAKE CITY	UT
05002	UNIVERSITY OF VERMONT COLLEGE OF MEDICINE	BURLINGTON	VT
05101	UNIVERSITY OF VIRGINIA SCHOOL OF MEDICINE	CHARLOTTESVILLE	VA
05104	VIRGINIA COMMONWEALTH UN MEDICAL COL OF VIRGINIA	RICHMOND	VA
05107	EASTERN VIRGINIA MEDICAL SCHOOL	NORFOLK	VA
05175	EDWARD VIA VIRGINIA COL OF OSTEOPATHIC MEDICINE	BLACKSBURG	VA
05404	UNIVERSITY OF WASHINGTON SCHOOL OF MEDICINE	SEATTLE	WA
05501	WEST VIRGINIA UNIVERSITY SCHOOL OF MEDICINE	MORGANTOWN	WV
05502	MARSHALL UNIVERSITY SCHOOL OF MEDICINE	HUNTINGTON	WV
05575	WEST VIRGINIA SCHOOL OF OSTEOPATHIC MEDICINE	LEWISBURG	WV
05605	UNIVERSITY OF WISCONSIN MEDICAL SCHOOL	MADISON	WI
05606	MEDICAL COLLEGE OF WISCONSIN	MILWAUKEE	WI
06001	UNIVERSITY OF ALBERTA, FACULTY OF MEDICINE	EDMONTON	AB
06002	UNIVERSITY OF CALGARY, FACULTY OF MEDICINE	CALGARY	AB
06101	UN OF BRITISH COLUMBIA, FACULTY OF MEDICINE	VANCOUVER	BC
06201	UNIVERSITY OF MANITOBA, FACULTY OF MEDICINE	WINNIPEG	MB
06301	MEMORIAL UN OF NEWFOUNDLAND, FACULTY OF MEDICINE	SAINT JOHNS	NF
06401	DALHOUSIE UNIVERSITY, FACULTY OF MEDICINE	HALIFAX	NS
06501	UNIVERSITY OF TORONTO, FACULTY OF MEDICINE	TORONTO	ON
06505	QUEEN'S UNIVERSITY, FACULTY OF MEDICINE	KINGSTON	ON
06506	UNIVERSITY OF WESTERN ONTARIO FACULTY OF MEDICINE	LONDON	ON
06509	UNIVERSITY OF OTTAWA, FACULTY OF HEALTH SCIENCES	OTTAWA	ON
06510	MCMASTER UN, MICHAEL DEGROOTE SCHOOL OF MEDICINE	HAMILTON	ON
06701	MCGILL UNIVERSITY, FACULTY OF MEDICINE	MONTREAL	PQ
06702	UNIVERSITE DE MONTREAL, FACULTE DE MEDECINE	MONTREAL	PQ
06703	LAVAL UNIVERSITE, FACULTE DE MEDECINE	SAINTE-FOY	PQ
06704	LAVAL UNIVERSITE, FACULTE DE MEDECINE	MONTREAL	PQ
06706	UNIVERSITY DE SHERBROOKE, FACULTE DE MEDECINE	SHERBROOKE	PQ
06801	UNIVERSITY OF SASKATCHEWAN, COLLEGE OF MEDICINE	SASKATOON	SK
10000	DOCTOR OF DENTAL MED (OBSOLETE - USE CODES 8XXXX)		DM

SCHOOL CODE	SCHOOL NAME	SCHOOL CITY	SCHOOL STATE
20000	DOCTOR OF DENTAL SGY (OBSOLETE - USE CODES 8XXXX)		DS
30000	CALIFORNIA SCHOOL OF PODIATRIC MEDICINE	OAKLAND	CA
30010	OBSOLETE - USE CODE 30500 (BARRY UNIVERSITY…)	MIAMI SHORES	FL
30020	OBSOLETE - USE CODE 30100 (WILLIAM M. SCHOLL…)	CHICAGO	IL
30040	OBSOLETE - USE CODE 30600 (COL…, DES MOINES UN)	DES MOINES	IA
30050	OBSOLETE - USE CODE 30200 (NEW YORK COLLEGE…)	NEW YORK	NY
30080	OBSOLETE - USE CODE 30300 (OHIO COLLEGE…)	CLEVELAND	OH
30090	OBSOLETE - USE CODE 30400 (TEMPLE UNIVERSITY…)	PHILADELPHIA	PA
30100*	WILLIAM M. SCHOLL COLLEGE OF PODIATRIC MEDICINE	CHICAGO	IL
30200*	NEW YORK COLLEGE OF PODIATRIC MEDICINE	NEW YORK	NY
30300*	OHIO COLLEGE OF PODIATRIC MEDICINE	CLEVELAND	OH
30400*	TEMPLE UNIVERSITY SCHOOL OF PODIATRIC MEDICINE	PHILADELPHIA	PA
30500*	BARRY UNIVERSITY SCHOOL OF PODIATRIC MEDICINE	MIAMI SHORES	FL
30600*	COL OF PODIATRIC MED AND SURGERY, DES MOINES UNIV	DES MOINES	IA
30700*	ARIZONA PODIATRIC MED PROGRAM AT MIDWESTERN UN	GLENDALE	AZ
80002**	UNIV OF ALABAMA AT BIRMINGHAM SCHOOL OF DENTISTRY	BIRMINGHAM	AL
80003**	ARIZONA SCHOOL OF DENTISTRY & ORAL HEALTH	MESA	AZ
80004**	UNIV OF THE PACIFIC DUGONI SCHOOL OF DENTISTRY	SAN FRANCISCO	CA
80006**	UNIV OF CALIF, SAN FRANCISCO SCHOOL OF DENTISTRY	SAN FRANCISCO	CA
80007**	UNIV OF CALIF, LOS ANGELES SCHOOL OF DENTISTRY	LOS ANGELES	CA
80008**	UNIV OF SOUTHERN CALIFORNIA SCHOOL OF DENTISTRY	LOS ANGELES	CA
80010**	LOMA LINDA UNIVERSITY SCHOOL OF DENTISTRY	LOMA LINDA	CA
80011**	UNIVERSITY OF COLORADO SCHOOL OF DENTISTRY	DENVER	CO
80012**	UNIVERSITY OF CONNECTICUT SCHOOL OF DENTISTRY	FARMINGTON	CT
80016**	HOWARD UNIVERSITY COLLEGE OF DENTISTRY	WASHINGTON	DC
80018**	UNIVERSITY OF FLORIDA COLLEGE OF DENTISTRY	GAINESVILLE	FL
80021**	NOVA SOUTHEASTERN UNIV COLLEGE OF DENTAL MEDICINE	FT LAUDERDALE	FL
80022**	MEDICAL COLLEGE OF GEORGIA SCHOOL OF DENTISTRY	AUGUSTA	GA
80027**	SOUTHERN ILLINOIS UNIV SCHOOL OF DENTAL MEDICINE	ALTON	IL
80028**	UNIV OF ILLINOIS AT CHICAGO COLLEGE OF DENTISTRY	CHICAGO	IL
80030**	INDIANA UNIVERSITY SCHOOL OF DENTISTRY	INDIANAPOLIS	IN
80032**	UNIVERSITY OF IOWA COLLEGE OF DENTISTRY	IOWA CITY	IA
80033**	UNIVERSITY OF KENTUCKY COLLEGE OF DENTISTRY	LEXINGTON	KY
80034**	UNIVERSITY OF LOUISVILLE SCHOOL OF DENTISTRY	LOUISVILLE	KY
80036**	LOUISIANA STATE UNIVERSITY SCHOOL OF DENTISTRY	NEW ORLEANS	LA
80038**	UNIV OF MARYLAND, BALTIMORE COL OF DENTAL SURGERY	BALTIMORE	MD
80040**	HARVARD SCHOOL OF DENTAL MEDICINE	BOSTON	MA
80041**	BOSTON UNIVERSITY SCHOOL OF DENTAL MEDICINE	BOSTON	MA
80042**	TUFTS UNIVERSITY SCHOOL OF DENTAL MEDICINE	BOSTON	MA
80044**	UNIVERSITY OF DETROIT MERCY SCHOOL OF DENTISTRY	DETROIT	MI
80046**	UNIVERSITY OF MICHIGAN SCHOOL OF DENTISTRY	ANN ARBOR	MI
80048**	UNIVERSITY OF MINNESOTA SCHOOL OF DENTISTRY	MINNEAPOLIS	MN
80049**	UNIVERSITY OF MISSISSIPPI SCHOOL OF DENTISTRY	JACKSON	MS

SCHOOL CODE	SCHOOL NAME	SCHOOL CITY	SCHOOL STATE
80052**	UNIV OF MISSOURI-KANSAS CITY SCHOOL OF DENTISTRY	KANSAS CITY	MO
80056**	CREIGHTON UNIVERSITY SCHOOL OF DENTISTRY	OMAHA	NE
80058**	UNIV OF NEBRASKA MEDICAL CENTER, COL OF DENTISTRY	LINCOLN	NE
80060**	UNIV OF MED & DENTISTRY OF NJ, NJ DENTAL SCHOOL	NEWARK	NJ
80062**	COLUMBIA UNIV SCHOOL OF DENTAL & ORAL SURGERY	NEW YORK	NY
80064**	NEW YORK UNIVERSITY COLLEGE OF DENTISTRY	NEW YORK	NY
80065**	STATE UN OF NY, STONY BROOK SCHOOL OF DENTAL MED	STONY BROOK	NY
80066**	STATE UN OF NY, BUFFALO SCHOOL OF DENTAL MEDICINE	BUFFALO	NY
80068**	UNIV OF NEVADA, LAS VEGAS SCHOOL OF DENTAL MED	LAS VEGAS	NV
80070**	UNIVERSITY OF NORTH CAROLINA SCHOOL OF DENTISTRY	CHAPEL HILL	NC
80072**	OHIO STATE UNIVERSITY COLLEGE OF DENTISTRY	COLUMBUS	OH
80074**	CASE WESTERN UNIVERSITY SCHOOL OF DENTAL MEDICINE	CLEVELAND	OH
80076**	UNIVERSITY OF OKLAHOMA COLLEGE OF DENTISTRY	OKLAHOMA CITY	OK
80078**	OREGON HEALTH & SCIENCES UNIV SCHOOL OF DENTISTRY	PORTLAND	OR
80080**	TEMPLE UNIVERSITY SCHOOL OF DENTISTRY	PHILADELPHIA	PA
80082**	UNIV OF PENNSYLVANIA SCHOOL OF DENTAL MEDICINE	PHILADELPHIA	PA
80084**	UNIV OF PITTSBURGH SCHOOL OF DENTAL MEDICINE	PITTSBURGH	PA
80085**	MEDICAL UNIV OF SOUTH CAROLINA COL OF DENTAL MED	CHARLESTON	SC
80086**	MEHARRY MEDICAL COLLEGE SCHOOL OF DENTISTRY	NASHVILLE	TN
80088**	UNIVERSITY OF TENNESSEE COLLEGE OF DENTISTRY	MEMPHIS	TN
80090**	BAYLOR COLLEGE OF DENTISTRY/TEXAS A&M UNIVERSITY	DALLAS	TX
80092**	UNIVERSITY OF TEXAS, HOUSTON DENTAL BRANCH	HOUSTON	TX
80093**	UNIVERSITY OF TEXAS, SAN ANTONIO DENTAL SCHOOL	SAN ANTONIO	TX
80094**	VIRGINIA COMMONWEALTH UNIV SCHOOL OF DENTISTRY	RICHMOND	VA
80096**	UNIVERSITY OF WASHINGTON SCHOOL OF DENTISTRY	SEATTLE	WA
80097**	UNIVERSITY OF WEST VIRGINIA SCHOOL OF DENTISTRY	MORGANTOWN	WV
80098**	MARQUETTE UNIVERSITY SCHOOL OF DENTISTRY	MILWAUKEE	WI
80099**	UNIVERSITY OF PUERTO RICO SCHOOL OF DENTISTRY	SAN JUAN	PR
80100**	UNIVERSITY OF SASKATCHEWAN COLLEGE OF DENTISTRY	SASKATOON	SK
80101**	UNIVERSITY OF ALBERTA FACULTY OF DENTISTRY	EDMONTON	AB
80102**	UNIV OF BRITISH COLUMBIA FACULTY OF DENTISTRY	VANCOUVER	BC
80103**	UNIV OF MANITOBA FACULTY OF DENTISTRY	WINNIPEG	MB
80104**	DALHOUSIE UNIVERSITY FACULTY OF DENTISTRY	HALIFAX	NS
80105**	UNIVERSITY OF TORONTO FACULTY OF DENTISTRY	TORONTO	ON
80106**	UNIV OF WESTERN ONTARIO FACULTY OF DENTISTRY	LONDON	ON
80107**	MCGILL UNIVERSITY FACULTY OF DENTISTRY	MONTREAL	PQ
80108**	UNIVERSITE DE MONTREAL FACULTE DE MED DENTAIRE	MONTREAL	PQ
80109**	UNIVERSITE LAVAL FACULTE DE MEDECINE DENTAIRE	QUEBEC	PQ
99998	FOREIGN DENTAL SCHOOLS		ZZ
99999	FOREIGN MEDICAL SCHOOLS		ZZ

* - **Source: Medicare Carriers Manual, Part 4, Section 1015, Exhibit 3B; CMS Central Office for Code 30700**

- **Source: American Dental Association Survey Center (Codes 2 through 109); these codes were left filled by CMS with "8000" for Codes 2 through 8, "800" for Codes 10 through 99, and "80" for Codes 100 through 109

7.3   Residency Code Table (Numeric Sequence)

RES CODE	PRIMARY DESCRIPTION	SECONDARY DESCRIPTION
1050	ALLERGY & IMMUNOLOGY	GENERAL
1051	ALLERGY & IMMUNOLOGY	DIAGNOSTIC LABORATORY IMMUNOLOGY
1052	ALLERGY & IMMUNOLOGY	CLINICAL IMMUNOLOGY
1100	ANESTHESIOLOGY	GENERAL
1101	ANESTHESIOLOGY	CRITICAL CARE MEDICINE
1102	ANESTHESIOLOGY	PAIN MEDICINE
1103	ANESTHESIOLOGY	PEDIATRIC ANESTHESIOLOGY
1150	COLON AND RECTAL SURGERY	GENERAL
1200	DERMATOLOGY	GENERAL
1201	DERMATOLOGY	DERMATOPATHOLOGY
1202	DERMATOLOGY	CLINICAL & LAB'Y DERM'L IMMUNOLOGY
1203	DERMATOLOGY	DERMATOLOGICAL MICROGRAPHIC SURGERY
1204	DERMATOLOGY	PROCEDURAL DERMATOLOGY
1250	EMERGENCY MEDICINE	GENERAL (SEE NOTE 4 IN HELP SCREEN)
1251	EMERGENCY MEDICINE	PEDIATRIC EMERGENCY MEDICINE
1252	EMERGENCY MEDICINE	EMERGENCY MEDICAL SERVICES
1253	EMERGENCY MEDICINE	SPORTS MEDICINE
1254	EMERGENCY MEDICINE	MEDICAL TOXICOLOGY
1255	EMERGENCY MEDICINE	UNDERSEA & HYPERBARIC MEDICINE
1300	EMERGENCY & INTERNAL MEDICINE	GENERAL
1350	FAMILY MEDICINE	GENERAL
1351	FAMILY MEDICINE	GERIATRIC MEDICINE
1352	FAMILY MEDICINE	SPORTS MEDICINE
1400	INTERNAL MEDICINE	GENERAL
1401	INTERNAL MEDICINE	CARDIAC ELECTROPHYSIOLOGY
1402	INTERNAL MEDICINE	CARDIOLOGY
1403	INTERNAL MEDICINE	CARDIOVASCULAR DISEASE
1404	INTERNAL MEDICINE	CRITICAL CARE MEDICINE
1405	INTERNAL MEDICINE	CLINICAL & LABORATORY IMMUNOLOGY
1406	INTERNAL MEDICINE	ENDOCRINOLOGY, DIABETES & METABOL'M
1407	INTERNAL MEDICINE	GASTROENTEROLOGY
1408	INTERNAL MEDICINE	GERIATRIC MEDICINE
1409	INTERNAL MEDICINE	HEMATOLOGY
1410	INTERNAL MEDICINE	INFECTIOUS DISEASE
1411	INTERNAL MEDICINE	MEDICAL ONCOLOGY
1412	INTERNAL MEDICINE	NEPHROLOGY
1413	INTERNAL MEDICINE	ONCOLOGY
1414	INTERNAL MEDICINE	PULMONARY DISEASE
1415	INTERNAL MEDICINE	RHEUMATOLOGY
1416	INTERNAL MEDICINE	SPORTS MEDICINE
1417	INTERNAL MEDICINE	TRANSPLANTATION MEDICINE

RES CODE	PRIMARY DESCRIPTION	SECONDARY DESCRIPTION
1418	INTERNAL MEDICINE	ADOLESCENT MEDICINE
1419	INTERNAL MEDICINE	HEMATOLOGY & ONCOLOGY
1420	INTERNAL MEDICINE	PULMON'Y DISEASE & CRIT. CARE MED.
1421	INTERNAL MEDICINE	INTERVENTIONAL CARDIOLOGY
1450	INTERNAL MEDICINE & PEDIATRICS	GENERAL
1455	INTERNAL MED. & DERMATOLOGY	GENERAL
1460	INT. MED. & EMERG./CRIT. CARE MED.	GENERAL
1465	INTERNAL MED. & NUCLEAR MEDICINE	GENERAL
1470	INTERNAL MED. & MEDICAL GENETICS	GENERAL
1500	INTERNAL MED./PHYS'L MED. & REHAB.	GENERAL
1550	INTERNAL MEDICINE & PSYCHIATRY	GENERAL
1600	NEUROLOGICAL SURGERY	GENERAL
1601	NEUROLOGICAL SURGERY	CRITICAL CARE MEDICINE
1602	NEUROLOGICAL SURGERY	PEDIATRIC NEUROLOGICAL SURGERY
1650	NEUROLOGY	GENERAL
1651	NEUROLOGY	CHILD NEUROLOGY
1652	NEUROLOGY	CLINICAL NEUROPHYSIOLOGY
1653	NEUROLOGY	NEURODEVELOPMENTAL DISABILITIES
1654	NEUROLOGY	NEUROMUSCULAR MEDICINE
1655	NEUROLOGY	PAIN MEDICINE
1656	NEUROLOGY	VASCULAR NEUROLOGY
1700	NUCLEAR MEDICINE	GENERAL
1701	NUCLEAR MEDICINE	NUCLEAR RADIOLOGY (WITH ABRAD)
1702	NUCLEAR MEDICINE	RADIOISOTOPIC PATHOLOGY (WITH ABPA)
1750	OBSTETRICS & GYNECOLOGY	GENERAL
1751	OBSTETRICS & GYNECOLOGY	CRITICAL CARE MEDICINE
1752	OBSTETRICS & GYNECOLOGY	GYNECOLOGICAL ONCOLOGY
1753	OBSTETRICS & GYNECOLOGY	MATERNAL & FETAL MEDICINE
1754	OBSTETRICS & GYNECOLOGY	REPRODUCTIVE ENDOCRINOLOGY
1800	OPTHAMOLOGY	GENERAL
1801	PEDIATRICS	PEDIATRIC OPTHAMOLOGY
1850	ORTHOPAEDIC SURGERY	GENERAL
1851	ORTHOPAEDIC SURGERY	ADULT RECONSTRUCTIVE ORTHOPAEDICS
1852	ORTHOPAEDIC SURGERY	HAND SURGERY
1853	ORTHOPAEDIC SURGERY	MUSCULOSKELETAL ONCOLOGY
1854	ORTHOPAEDIC SURGERY	ORTHOPAEDIC TRAUMA
1855	ORTHOPAEDIC SURGERY	PEDIATRIC ORTHOPAEDICS
1856	ORTHOPAEDIC SURGERY	ORTHOPAEDIC SPORTS MEDICINE
1857	ORTHOPAEDIC SURGERY	FOOT & ANKLE ORTHOPAEDICS
1858	ORTHOPAEDIC SURGERY	ONCOLOGY/PATHOLOGY
1859	ORTHOPAEDIC SURGERY	REHABILITATION ORTHOPAEDICS
1860	ORTHOPAEDIC SURGERY	ORTHOPAEDIC SURGERY OF THE SPINE

RES CODE	PRIMARY DESCRIPTION	SECONDARY DESCRIPTION
1900	OTOLARYNGOLOGY	GENERAL
1901	OTOLARYNGOLOGY	FACIAL PLASTIC RECONSTRUCTIVE OTOL.
1902	OTOLARYNGOLOGY	HEAD AND NECK ONCOLOGY
1903	OTOLARYNGOLOGY	NEUROTOLOGY
1904	OTOLARYNGOLOGY	OTOLOGY
1905	OTOLARYNGOLOGY	PEDIATRIC OTOLARYNGOLOGY
1925	PATHOLOGY, ANATOMIC	GENERAL
1950	PATHOLOGY, ANATOMIC AND CLINICAL	GENERAL
1951	PATHOLOGY, ANATOMIC AND CLINICAL	BLOOD BANKING/TRANSFUSION MEDICINE
1952	PATHOLOGY, ANATOMIC AND CLINICAL	CHEMICAL PATHOLOGY
1953	PATHOLOGY, ANATOMIC AND CLINICAL	CYTOPATHOLOGY
1954	PATHOLOGY, ANATOMIC AND CLINICAL	DERMATOPATHOLOGY
1955	PATHOLOGY, ANATOMIC AND CLINICAL	FORENSIC PATHOLOGY
1956	PATHOLOGY, ANATOMIC AND CLINICAL	HEMATOLOGY
1957	PATHOLOGY, ANATOMIC AND CLINICAL	IMMUNOPATHOLOGY
1958	PATHOLOGY, ANATOMIC AND CLINICAL	MEDICAL MICROBIOLOGY
1959	PATHOLOGY, ANATOMIC AND CLINICAL	NEUROPATHOLOGY
1960	PATHOLOGY, ANATOMIC AND CLINICAL	PEDIATRIC PATHOLOGY
1961	PATHOLOGY, ANATOMIC AND CLINICAL	RADIOISOTOPIC PATHOLOGY
1962	PATHOLOGY, ANATOMIC AND CLINICAL	SELECTIVE PATHOLOGY
1975	PATHOLOGY, CLINICAL	GENERAL
2000	PEDIATRICS	GENERAL
2001	PEDIATRICS	ADOLESCENT MEDICINE
2002	PEDIATRICS	CLINICAL & LABORATORY IMMUNOLOGY
2003	PEDIATRICS	NEONATAL-PERINATAL MEDICINE
2004	PEDIATRICS	CARDIOLOGY
2005	PEDIATRICS	CRITICAL CARE MEDICINE
2006	PEDIATRICS	EMERGENCY MEDICINE
2007	PEDIATRICS	ENDOCRINOLOGY
2008	PEDIATRICS	GASTROENTEROLOGY
2009	PEDIATRICS	HEMATOLOGY/ONCOLOGY
2010	PEDIATRICS	INFECTIOUS DISEASE
2011	PEDIATRICS	NEPHROLOGY
2012	PEDIATRICS	PULMONOLOGY
2013	PEDIATRICS	RHEUMATOLOGY
2014	PEDIATRICS	SPORTS MEDICINE
2015	PEDIATRICS	DEVELOPMENTAL-BEHAVIORAL PEDIATRICS
2050	PHYSICAL MEDICINE & REHABILITATION	GENERAL
2051	PHYSICAL MEDICINE & REHABILITATION	PAIN MEDICATION
2052	PHYSICAL MEDICINE & REHABILITATION	PEDIATRIC REHABILITATION MEDICINE
2053	PHYSICAL MEDICINE & REHABILITATION	SPINAL CORD INJURY MEDICINE
2100	PLASTIC SURGERY	GENERAL

RES CODE	PRIMARY DESCRIPTION	SECONDARY DESCRIPTION
2101	PLASTIC SURGERY	HAND SURGERY
2102	PLASTIC SURGERY	CRANIOFACIAL SURGERY
2150	PREVENTIVE MEDICINE	GENERAL
2151	PREVENTIVE MEDICINE	AEROSPACE MEDICINE
2152	PREVENTIVE MEDICINE	OCCUPATIONAL MEDICINE
2153	PREVENTIVE MEDICINE	PUBLIC HEALTH & GEN. PREVEN. MED.
2154	PREVENTIVE MEDICINE	UNDERSEA & HYPERBARIC MEDICINE
2155	PREVENTIVE MEDICINE	MEDICAL TOXICOLOGY
2200	PSYCHIATRY	GENERAL
2201	PSYCHIATRY	CHILD & ADOLESCENT PSYCHIATRY
2202	PSYCHIATRY	GERIATRIC PSYCHIATRY
2203	PSYCHIATRY	ADDICTION PSYCHIATRY
2204	PSYCHIATRY	FORENSIC PSYCHIATRY
2205	PSYCHIATRY	PAIN MEDICINE
2206	PSYCHIATRY	PSYCHOSOMATIC MEDICINE
2250	RADIOLOGY, DIAGNOSTIC	RADIATION ONCOLOGY
2300	RADIOLOGICAL PHYSICS	GENERAL
2350	RADIOLOGY	GENERAL
2351	RADIOLOGY, DIAGNOSTIC	NUCLEAR RADIOLOGY
2400	RADIOLOGY, DIAGNOSTIC	GENERAL
2401	RADIOLOGY, DIAGNOSTIC	NEURORADIOLOGY
2402	RADIOLOGY, DIAGNOSTIC	PEDIATRIC RADIOLOGY
2403	RADIOLOGY, DIAGNOSTIC	VASCULAR & INTERVENTIONAL RADIOLOGY
2404	RADIOLOGY, DIAGNOSTIC	ABDOMINAL RADIOLOGY
2405	RADIOLOGY, DIAGNOSTIC	CARDIOTHORACIC RADIOLOGY
2406	RADIOLOGY, DIAGNOSTIC	ENDOVASCULAR SURG'L NEURORADIOLOGY
2407	RADIOLOGY, DIAGNOSTIC	MUSCULOSKELETAL RADIOLOGY
2425	DIAG. RAD'Y/NUC. MED./NUC. RAD'Y	GENERAL
2450	SURGERY	GENERAL
2451	SURGERY	CRITICAL CARE MEDICINE
2452	SURGERY	GENERAL VASCULAR SURGERY
2453	SURGERY	HAND SURGERY
2454	SURGERY	PEDIATRIC SURGERY
2455	SURGERY	SURGICAL CRITICAL CARE
2500	SURGERY	THORACIC SURGERY
2525	TRANSITIONAL YEAR (ALLOPATHIC MED.)	GENERAL
2550	PRELIMINARY MEDICINE	GENERAL
2600	PRELIMINARY SURGERY	GENERAL
2650	UROLOGY	GENERAL
2651	UROLOGY	PEDIATRIC UROLOGY
2700	MEDICAL GENETICS	GENERAL
2701	MEDICAL GENETICS	MOLECULAR GENETIC PATHOLOGY

RES CODE	PRIMARY DESCRIPTION	SECONDARY DESCRIPTION
2725	SLEEP MEDICINE	GENERAL
2750	FAMILY MEDICINE/PSYCHIATRY	GENERAL
2755	INTERNAL MEDICINE/FAMILY MEDICINE	GENERAL
2760	INTERNAL MEDICINE/NEUROLOGY	GENERAL
2765	INTERNAL MEDICINE/PREVENTIVE MED.	GENERAL
2770	NEUROLOGY/PHYSICAL MED. & REHAB.	GENERAL
2775	NEUROLOGY & DIAG. RAD'Y/NEURORAD'Y	GENERAL
2800	PEDIATRICS/EMERGENCY MEDICINE	GENERAL
2850	PED./PSYCH./CHILD & ADOLES. PSYCH.	GENERAL
2900	PEDIATRICS/PHYSICAL MED. & REHAB.	GENERAL
2905	PEDIATRICS/DERMATOLOGY	GENERAL
2910	PEDIATRICS/MEDICAL GENETICS	GENERAL
2950	PHYSICAL MED. & REHAB./NEUROLOGY	GENERAL
2955	PSYCHIATRY/NEUROLOGY	GENERAL
3050	PREVENTIVE/AEROSPACE MEDICINE	GENERAL
3100	ANESTHESIOLOGY	GENERAL
3101	ANESTHESIOLOGY	CRITICAL CARE MEDICINE
3102	ANESTHESIOLOGY	ACUTE & CHRONIC PAIN MANAGEMENT
3150	DIAGNOSTIC RADIOLOGY	ANGIOGRAPHY & INTERVENT'L RADIOLOGY
3200	INTERNAL MEDICINE	CARDIOLOGY
3250	INTERNAL MEDICINE	CLINICAL ALLERGY & IMMUNOLOGY
3275	CRITICAL CARE SURGERY	GENERAL
3300	PATHOLOGY, LABORATORY MEDICINE	CYTOPATHOLOGY
3350	DERMATOLOGY	GENERAL
3351	DERMATOLOGY	DERMATOPATHOLOGY
3352	DERMATOLOGY	MOHS MICROGRAPHIC SURGERY
3400	DIAGNOSTIC RADIOLOGY	GENERAL
3450	EMERGENCY MEDICINE	GENERAL
3451	EMERGENCY MEDICINE	SPORTS MEDICINE
3452	EMERGENCY MEDICINE	EMERGENCY MEDICAL SERVICES
3453	EMERGENCY MEDICINE	TOXICOLOGY
3475	EMERGENCY MEDICINE/PEDIATRICS	GENERAL
3500	INTERNAL MEDICINE	ENDOCRINOLOGY
3550	INTERNAL MEDICINE	GASTROENTEROLOGY
3600	FAMILY PRACTICE	GENERAL
3601	FAMILY PRACTICE	ADOLESCENT AND YOUNG ADULT MEDICINE
3602	FAMILY PRACTICE	GERIATRICS
3603	FAMILY PRACTICE	SPORTS MEDICINE
3604	FAMILY PRACTICE	ADDICTION MEDICINE
3625	FAMILY PRACTICE/EMERGENCY MEDICINE	GENERAL
3630	FAM. PRAC. & OST. MANIP. TREATMENT	GENERAL
3650	GENERAL SURGERY	GENERAL

RES CODE	PRIMARY DESCRIPTION	SECONDARY DESCRIPTION
3700	GENERAL VASCULAR SURGERY	GENERAL
3750	HEMATOLOGY	GENERAL (OBSOLETE - USE CODE 3901)
3800	INTERNAL MEDICINE	HEMATOLOGY/ONCOLOGY
3850	INTERNAL MEDICINE	INFECTIOUS DISEASES
3900	INTERNAL MEDICINE	GENERAL
3901	INTERNAL MEDICINE	HEMATOLOGY
3902	INTERNAL MEDICINE	PULMONARY DISEASES
3903	INTERNAL MEDICINE	CRITICAL CARE MEDICINE
3904	INTERNAL MEDICINE	GERIATRICS
3905	INTERNAL MEDICINE	CLIN'L CARDIAC ELECTROPHYSIOLOGY
3906	INTERNAL MEDICINE	SPORTS MEDICINE
3907	INTERNAL MEDICINE	INTERVENTIONAL CARDIOLOGY
3908	INTERNAL MEDICINE	PULMONARY DISEASES/CRIT. CARE MED.
3909	INTERNAL MEDICINE	SLEEP MEDICINE
3950	OBSTETRICS/GYNECOLOGY	MATERNAL-FETAL MEDICINE
4000	MEDICAL DISEASES OF THE CHEST	GENERAL
4050	PEDIATRICS	NEONATAL MEDICINE
4100	INTERNAL MEDICINE	NEPHROLOGY
4150	NEUROLOGY	GENERAL
4151	NEUROLOGY	NEUROPHYSIOLOGY
4200	NEUROLOGY	CHILD NEUROLOGY
4250	DIAGNOSTIC RADIOLOGY	NEURORADIOLOGY
4300	NEUROLOGICAL SURGERY	GENERAL
4350	NUCLEAR MEDICINE	GENERAL
4351	NUCLEAR MEDICINE	IN-VIVO & IN-VITRO NUCLEAR MEDICINE
4352	NUCLEAR MEDICINE	NUCLEAR CARDIOLOGY
4353	NUCLEAR MEDICINE	NUCLEAR IMAGING & THERAPY
4400	DIAGNOSTIC RADIOLOGY	NUCLEAR RADIOLOGY
4450	OBSTETRICS/GYNECOLOGY	GENERAL
4500	OBSTETRICS & GYNECOLOGICAL SURGERY	GENERAL
4550	OCCUPATIONAL MEDICINE	GENERAL
4575	OCCUPATIONAL/ENVIRONMENTAL MEDICINE	GENERAL
4600	INTERNAL MEDICINE	ONCOLOGY
4650	OBSTETRICS/GYNECOLOGY	GYNECOLOGICAL ONCOLOGY
4700	OPTHAMOLOGY	GENERAL
4750	ORTHOPAEDIC SURGERY	GENERAL
4751	ORTHOPAEDIC SURGERY	HAND SURGERY
4752	ORTHOPAEDIC SURGERY	SPINE SURGERY
4753	ORTHOPAEDIC SURGERY	ORTHOPAEDIC SURG'L SPORTS MEDICINE
4800	NEUROMUSCULOS. & OST. MANIP. MED.	GENERAL
4801	NEUROMUSCULOS. & OST. MANIP. MED.	ADVANCED & CONCENTRATED TRAINING
4802	NEUROMUSCULOS. & OST. MANIP. MED.	SPORTS MEDICINE

RES CODE	PRIMARY DESCRIPTION	SECONDARY DESCRIPTION
4825	NEUROMUSCULOS. MED./INT. FAM. PRAC.	GENERAL
4850	OTOLARYNGOLOGY	GENERAL
4851	OTOLARYNGOLOGY	OTOLARYNGIC ALLERGY
4900	OTORHINOLARYNGOLOGY	GENERAL
4950	OTORHINOL'Y/FAC'L PLASTIC SURGERY	GENERAL
4975	FACIAL PLASTIC SURGERY	GENERAL
5000	PATHOLOGY	GENERAL
5001	PATHOLOGY, LABORATORY MEDICINE	BLOOD BANKING/TRANSFUSION MEDICINE
5002	PATHOLOGY, LABORATORY MEDICINE	CHEMICAL PATHOLOGY
5003	PATHOLOGY, LABORATORY MEDICINE	DERMATOPATHOLOGY
5004	PATHOLOGY, LABORATORY MEDICINE	HEMATOLOGY
5005	PATHOLOGY, LABORATORY MEDICINE	IMMUNOPATHOLOGY
5006	PATHOLOGY, LABORATORY MEDICINE	MEDICAL MICROBIOLOGY
5007	PATHOLOGY, LABORATORY MEDICINE	NEUROPATHOLOGY
5050	PATHOLOGY, ANATOMIC	GENERAL
5075	PATHOLOGY, ANATOMIC & FORENSIC	GENERAL
5100	PATHOLOGY, ANATOMIC/LABORATORY MED.	GENERAL
5150	PATHOLOGY, LABORATORY MEDICINE	FORENSIC PATHOLOGY
5200	PATHOLOGY, LABORATORY MEDICINE	GENERAL
5250	PEDIATRICS	GENERAL
5251	PEDIATRICS	ALLERGY/IMMUNOLOGY
5252	PEDIATRICS	CARDIOLOGY
5253	PEDIATRICS	HEMATOLOGY/ONCOLOGY
5254	PEDIATRICS	INFECTIOUS DISEASES
5255	PEDIATRICS	INTENSIVE CARE
5256	PEDIATRICS	NEPHROLOGY
5257	PEDIATRICS	ADOLESCENT & YOUNG ADULT MEDICINE
5258	PEDIATRICS	PEDIATRIC PULMONOLOGY
5259	PEDIATRICS	PEDIATRIC SPORTS MEDICINE
5260	PEDIATRICS	ENDOCRINOLOGY
5300	PLASTIC & RECONSTRUCTIVE SURGERY	GENERAL
5350	PREVENTIVE MED., OCCUP'L/ENVIRON'L	GENERAL
5400	PREVENTIVE MEDICINE	GENERAL
5425	PUBLIC HEALTH & PREVENTIVE MEDICINE	GENERAL
5450	PROCTOLOGY	GENERAL
5475	PROCTOLOGIC SURGERY	GENERAL
5500	PSYCHIATRY	GENERAL
5501	PSYCHIATRY	ADDICTION PSYCHIATRY
5502	PSYCHIATRY	GERIATRIC PSYCHIATRY
5550	PSYCHIATRY	CHILD PSYCHIATRY
5600	PSYCHIATRY, GENERAL AND CHILD	GENERAL
5650	PSYCHIATRY, PEDIATRIC	GENERAL

RES CODE	PRIMARY DESCRIPTION	SECONDARY DESCRIPTION
5700	RADIATION ONCOLOGY	GENERAL
5750	RADIATION THERAPY	GENERAL
5800	DIAGNOSTIC RADIOLOGY	RADIOLOGICAL IMAGING
5850	RADIOLOGY	GENERAL
5851	RADIOLOGY	DIAGNOSTIC ULTRASOUND
5852	DIAGNOSTIC RADIOLOGY	PEDIATRIC RADIOLOGY
5900	PHYSICAL & REHABILITATION MEDICINE	GENERAL
5901	PHYSICAL & REHABILITATION MEDICINE	SPORTS MEDICINE
5950	OBSTETRICS/GYNECOLOGY	REPRODUCTIVE ENDOCRINOLOGY
6000	INTERNAL MEDICINE	RHEUMATOLOGY
6050	ROENTGENOLOGY	GENERAL
6100	ROENTGENOLOGY, DIAGNOSTIC	GENERAL
6150	CARDIOTHORACIC VASCULAR SURGERY	GENERAL
6200	THORACIC SURGERY	GENERAL
6250	UROLOGICAL SURGERY	GENERAL
6300	INTERNAL MEDICINE/EMERG'Y MEDICINE	GENERAL
6350	INTERNAL MEDICINE/PEDIATRICS	GENERAL
6400	TRAD'L ROT'G INTERN'P (OSTEO. MED.)	GENERAL
6450	DIAGNOSTIC RADIOLOGY	VASCULAR & INTERVENTIONAL RADIOLOGY
6500	DIAGNOSTIC RADIOLOGY	BODY IMAGING
6550	SPORTS MEDICINE	GENERAL
7050	PODIATRIC ORTHOPAEDIC RESIDENCY	GENERAL
7100	PODIATRIC SURGICAL RESIDENCY	GENERAL
7150	PRIMARY PODIATRIC MEDICAL RESIDENCY	GENERAL
7200	ROTATING PODIATRIC RESIDENCY	GENERAL
8050	DENTAL PUBLIC HEALTH	GENERAL
8100	ENDODONTICS	GENERAL
8150	ORAL PATHOLOGY	GENERAL
8200	ORAL AND MAXILLOFACIAL SURGERY	GENERAL
8250	ORTHODONTICS/DENTOFAC'L ORTHOPEDICS	GENERAL
8300	PEDIATRIC DENTISTRY	GENERAL
8350	PERIODONTICS	GENERAL
8400	PROSTHODONTICS	GENERAL
8450	PROSTHODONTICS MAXILLOFACIAL	GENERAL
8500	GENERAL PRACTICE DENTISTRY	GENERAL
8550	ADVANCED EDUC. IN GENERAL DENTISTRY	GENERAL
9050	EMERGENCY MEDICINE	3-YEAR RESIDENCY
9100	EMERGENCY MEDICINE	4-YEAR RESIDENCY
9150	RESERVED FOR FUTURE USE	
9200	RESERVED FOR FUTURE USE	
9250	RESERVED FOR FUTURE USE	
9300	RESERVED FOR FUTURE USE	

RES CODE	PRIMARY DESCRIPTION	SECONDARY DESCRIPTION
9350	RESERVED FOR FUTURE USE	
9400	RESERVED FOR FUTURE USE	
9450	RESERVED FOR FUTURE USE	
9500	RESERVED FOR FUTURE USE	
9550	RESERVED FOR FUTURE USE	
9600	RESERVED FOR FUTURE USE	
9650	RESERVED FOR FUTURE USE	
9700	RESERVED FOR FUTURE USE	
9750	RESERVED FOR FUTURE USE	
9800	RESERVED FOR FUTURE USE	
9850	RESERVED FOR FUTURE USE	
9900	RESERVED FOR FUTURE USE	
9950	RESERVED FOR FUTURE USE	

7.3   Residency Code Table (Alphabetic Sequence)

RES CODE	PRIMARY DESCRIPTION	SECONDARY DESCRIPTION
1050	ALLERGY & IMMUNOLOGY	GENERAL
1052	ALLERGY & IMMUNOLOGY	CLINICAL IMMUNOLOGY
1051	ALLERGY & IMMUNOLOGY	DIAGNOSTIC LABORATORY IMMUNOLOGY
1100	ANESTHESIOLOGY	GENERAL
1101	ANESTHESIOLOGY	CRITICAL CARE MEDICINE
1102	ANESTHESIOLOGY	PAIN MEDICINE
1103	ANESTHESIOLOGY	PEDIATRIC ANESTHESIOLOGY
1150	COLON AND RECTAL SURGERY	GENERAL
1200	DERMATOLOGY	GENERAL
1202	DERMATOLOGY	CLINICAL & LAB'Y DERM'L IMMUNOLOGY
1203	DERMATOLOGY	DERMATOLOGICAL MICROGRAPHIC SURGERY
1201	DERMATOLOGY	DERMATOPATHOLOGY
1204	DERMATOLOGY	PROCEDURAL DERMATOLOGY
2425	DIAG. RAD'Y/NUC. MED./NUC. RAD'Y	GENERAL
1300	EMERGENCY & INTERNAL MEDICINE	GENERAL
1250	EMERGENCY MEDICINE	GENERAL (SEE NOTE 4 IN HELP SCREEN)
9050	EMERGENCY MEDICINE	3-YEAR RESIDENCY
9100	EMERGENCY MEDICINE	4-YEAR RESIDENCY
1252	EMERGENCY MEDICINE	EMERGENCY MEDICAL SERVICES
1254	EMERGENCY MEDICINE	MEDICAL TOXICOLOGY
1251	EMERGENCY MEDICINE	PEDIATRIC EMERGENCY MEDICINE
1253	EMERGENCY MEDICINE	SPORTS MEDICINE
1255	EMERGENCY MEDICINE	UNDERSEA & HYPERBARIC MEDICINE
1350	FAMILY MEDICINE	GENERAL
1351	FAMILY MEDICINE	GERIATRIC MEDICINE
1352	FAMILY MEDICINE	SPORTS MEDICINE
2750	FAMILY MEDICINE/PSYCHIATRY	GENERAL
1460	INT. MED. & EMERG./CRIT. CARE MED.	GENERAL
1455	INTERNAL MED. & DERMATOLOGY	GENERAL
1470	INTERNAL MED. & MEDICAL GENETICS	GENERAL
1465	INTERNAL MED. & NUCLEAR MEDICINE	GENERAL
1500	INTERNAL MED./PHYS'L MED. & REHAB.	GENERAL
1400	INTERNAL MEDICINE	GENERAL
1418	INTERNAL MEDICINE	ADOLESCENT MEDICINE
1401	INTERNAL MEDICINE	CARDIAC ELECTROPHYSIOLOGY
1402	INTERNAL MEDICINE	CARDIOLOGY
1403	INTERNAL MEDICINE	CARDIOVASCULAR DISEASE
1405	INTERNAL MEDICINE	CLINICAL & LABORATORY IMMUNOLOGY
1404	INTERNAL MEDICINE	CRITICAL CARE MEDICINE
1406	INTERNAL MEDICINE	ENDOCRINOLOGY, DIABETES & METABOL'M
1407	INTERNAL MEDICINE	GASTROENTEROLOGY

RES CODE	PRIMARY DESCRIPTION	SECONDARY DESCRIPTION
1408	INTERNAL MEDICINE	GERIATRIC MEDICINE
1409	INTERNAL MEDICINE	HEMATOLOGY
1419	INTERNAL MEDICINE	HEMATOLOGY & ONCOLOGY
1410	INTERNAL MEDICINE	INFECTIOUS DISEASE
1421	INTERNAL MEDICINE	INTERVENTIONAL CARDIOLOGY
1411	INTERNAL MEDICINE	MEDICAL ONCOLOGY
1412	INTERNAL MEDICINE	NEPHROLOGY
1413	INTERNAL MEDICINE	ONCOLOGY
1414	INTERNAL MEDICINE	PULMONARY DISEASE
1420	INTERNAL MEDICINE	PULMON'Y DISEASE & CRIT. CARE MED.
1415	INTERNAL MEDICINE	RHEUMATOLOGY
1416	INTERNAL MEDICINE	SPORTS MEDICINE
1417	INTERNAL MEDICINE	TRANSPLANTATION MEDICINE
1450	INTERNAL MEDICINE & PEDIATRICS	GENERAL
1550	INTERNAL MEDICINE & PSYCHIATRY	GENERAL
2755	INTERNAL MEDICINE/FAMILY MEDICINE	GENERAL
2760	INTERNAL MEDICINE/NEUROLOGY	GENERAL
2765	INTERNAL MEDICINE/PREVENTIVE MED.	GENERAL
2700	MEDICAL GENETICS	GENERAL
2701	MEDICAL GENETICS	MOLECULAR GENETIC PATHOLOGY
1600	NEUROLOGICAL SURGERY	GENERAL
1601	NEUROLOGICAL SURGERY	CRITICAL CARE MEDICINE
1602	NEUROLOGICAL SURGERY	PEDIATRIC NEUROLOGICAL SURGERY
1650	NEUROLOGY	GENERAL
1651	NEUROLOGY	CHILD NEUROLOGY
1652	NEUROLOGY	CLINICAL NEUROPHYSIOLOGY
1653	NEUROLOGY	NEURODEVELOPMENTAL DISABILITIES
1654	NEUROLOGY	NEUROMUSCULAR MEDICINE
1655	NEUROLOGY	PAIN MEDICINE
1656	NEUROLOGY	VASCULAR NEUROLOGY
2775	NEUROLOGY & DIAG. RAD'Y/NEURORAD'Y	GENERAL
2770	NEUROLOGY/PHYSICAL MED. & REHAB.	GENERAL
1700	NUCLEAR MEDICINE	GENERAL
1701	NUCLEAR MEDICINE	NUCLEAR RADIOLOGY (WITH ABRAD)
1702	NUCLEAR MEDICINE	RADIOISOTOPIC PATHOLOGY (WITH ABPA)
1750	OBSTETRICS & GYNECOLOGY	GENERAL
1751	OBSTETRICS & GYNECOLOGY	CRITICAL CARE MEDICINE
1752	OBSTETRICS & GYNECOLOGY	GYNECOLOGICAL ONCOLOGY
1753	OBSTETRICS & GYNECOLOGY	MATERNAL & FETAL MEDICINE
1754	OBSTETRICS & GYNECOLOGY	REPRODUCTIVE ENDOCRINOLOGY
1800	OPTHAMOLOGY	GENERAL
1850	ORTHOPAEDIC SURGERY	GENERAL

RES CODE	PRIMARY DESCRIPTION	SECONDARY DESCRIPTION
1851	ORTHOPAEDIC SURGERY	ADULT RECONSTRUCTIVE ORTHOPAEDICS
1857	ORTHOPAEDIC SURGERY	FOOT & ANKLE ORTHOPAEDICS
1852	ORTHOPAEDIC SURGERY	HAND SURGERY
1853	ORTHOPAEDIC SURGERY	MUSCULOSKELETAL ONCOLOGY
1858	ORTHOPAEDIC SURGERY	ONCOLOGY/PATHOLOGY
1856	ORTHOPAEDIC SURGERY	ORTHOPAEDIC SPORTS MEDICINE
1860	ORTHOPAEDIC SURGERY	ORTHOPAEDIC SURGERY OF THE SPINE
1854	ORTHOPAEDIC SURGERY	ORTHOPAEDIC TRAUMA
1855	ORTHOPAEDIC SURGERY	PEDIATRIC ORTHOPAEDICS
1859	ORTHOPAEDIC SURGERY	REHABILITATION ORTHOPAEDICS
1900	OTOLARYNGOLOGY	GENERAL
1901	OTOLARYNGOLOGY	FACIAL PLASTIC RECONSTRUCTIVE OTOL.
1902	OTOLARYNGOLOGY	HEAD AND NECK ONCOLOGY
1903	OTOLARYNGOLOGY	NEUROTOLOGY
1904	OTOLARYNGOLOGY	OTOLOGY
1905	OTOLARYNGOLOGY	PEDIATRIC OTOLARYNGOLOGY
1925	PATHOLOGY, ANATOMIC	GENERAL
1950	PATHOLOGY, ANATOMIC AND CLINICAL	GENERAL
1951	PATHOLOGY, ANATOMIC AND CLINICAL	BLOOD BANKING/TRANSFUSION MEDICINE
1952	PATHOLOGY, ANATOMIC AND CLINICAL	CHEMICAL PATHOLOGY
1953	PATHOLOGY, ANATOMIC AND CLINICAL	CYTOPATHOLOGY
1954	PATHOLOGY, ANATOMIC AND CLINICAL	DERMATOPATHOLOGY
1955	PATHOLOGY, ANATOMIC AND CLINICAL	FORENSIC PATHOLOGY
1956	PATHOLOGY, ANATOMIC AND CLINICAL	HEMATOLOGY
1957	PATHOLOGY, ANATOMIC AND CLINICAL	IMMUNOPATHOLOGY
1958	PATHOLOGY, ANATOMIC AND CLINICAL	MEDICAL MICROBIOLOGY
1959	PATHOLOGY, ANATOMIC AND CLINICAL	NEUROPATHOLOGY
1960	PATHOLOGY, ANATOMIC AND CLINICAL	PEDIATRIC PATHOLOGY
1961	PATHOLOGY, ANATOMIC AND CLINICAL	RADIOISOTOPIC PATHOLOGY
1962	PATHOLOGY, ANATOMIC AND CLINICAL	SELECTIVE PATHOLOGY
1975	PATHOLOGY, CLINICAL	GENERAL
2850	PED./PSYCH./CHILD & ADOLES. PSYCH.	GENERAL
2000	PEDIATRICS	GENERAL
2001	PEDIATRICS	ADOLESCENT MEDICINE
2004	PEDIATRICS	CARDIOLOGY
2002	PEDIATRICS	CLINICAL & LABORATORY IMMUNOLOGY
2005	PEDIATRICS	CRITICAL CARE MEDICINE
2015	PEDIATRICS	DEVELOPMENTAL-BEHAVIORAL PEDIATRICS
2006	PEDIATRICS	EMERGENCY MEDICINE
2007	PEDIATRICS	ENDOCRINOLOGY
2008	PEDIATRICS	GASTROENTEROLOGY
2009	PEDIATRICS	HEMATOLOGY/ONCOLOGY

RES CODE	PRIMARY DESCRIPTION	SECONDARY DESCRIPTION
2010	PEDIATRICS	INFECTIOUS DISEASE
2003	PEDIATRICS	NEONATAL-PERINATAL MEDICINE
2011	PEDIATRICS	NEPHROLOGY
1801	PEDIATRICS	PEDIATRIC OPTHAMOLOGY
2012	PEDIATRICS	PULMONOLOGY
2013	PEDIATRICS	RHEUMATOLOGY
2014	PEDIATRICS	SPORTS MEDICINE
2905	PEDIATRICS/DERMATOLOGY	GENERAL
2800	PEDIATRICS/EMERGENCY MEDICINE	GENERAL
2910	PEDIATRICS/MEDICAL GENETICS	GENERAL
2900	PEDIATRICS/PHYSICAL MED. & REHAB.	GENERAL
2950	PHYSICAL MED. & REHAB./NEUROLOGY	GENERAL
2050	PHYSICAL MEDICINE & REHABILITATION	GENERAL
2051	PHYSICAL MEDICINE & REHABILITATION	PAIN MEDICATION
2052	PHYSICAL MEDICINE & REHABILITATION	PEDIATRIC REHABILITATION MEDICINE
2053	PHYSICAL MEDICINE & REHABILITATION	SPINAL CORD INJURY MEDICINE
2100	PLASTIC SURGERY	GENERAL
2102	PLASTIC SURGERY	CRANIOFACIAL SURGERY
2101	PLASTIC SURGERY	HAND SURGERY
2550	PRELIMINARY MEDICINE	GENERAL
2600	PRELIMINARY SURGERY	GENERAL
2150	PREVENTIVE MEDICINE	GENERAL
2151	PREVENTIVE MEDICINE	AEROSPACE MEDICINE
2155	PREVENTIVE MEDICINE	MEDICAL TOXICOLOGY
2152	PREVENTIVE MEDICINE	OCCUPATIONAL MEDICINE
2153	PREVENTIVE MEDICINE	PUBLIC HEALTH & GEN. PREVEN. MED.
2154	PREVENTIVE MEDICINE	UNDERSEA & HYPERBARIC MEDICINE
2200	PSYCHIATRY	GENERAL
2203	PSYCHIATRY	ADDICTION PSYCHIATRY
2201	PSYCHIATRY	CHILD & ADOLESCENT PSYCHIATRY
2204	PSYCHIATRY	FORENSIC PSYCHIATRY
2202	PSYCHIATRY	GERIATRIC PSYCHIATRY
2205	PSYCHIATRY	PAIN MEDICINE
2206	PSYCHIATRY	PSYCHOSOMATIC MEDICINE
2955	PSYCHIATRY/NEUROLOGY	GENERAL
2300	RADIOLOGICAL PHYSICS	GENERAL
2350	RADIOLOGY	GENERAL
2400	RADIOLOGY, DIAGNOSTIC	GENERAL
2404	RADIOLOGY, DIAGNOSTIC	ABDOMINAL RADIOLOGY
2405	RADIOLOGY, DIAGNOSTIC	CARDIOTHORACIC RADIOLOGY
2406	RADIOLOGY, DIAGNOSTIC	ENDOVASCULAR SURG'L NEURORADIOLOGY
2407	RADIOLOGY, DIAGNOSTIC	MUSCULOSKELETAL RADIOLOGY

RES CODE	PRIMARY DESCRIPTION	SECONDARY DESCRIPTION
2401	RADIOLOGY, DIAGNOSTIC	NEURORADIOLOGY
2351	RADIOLOGY, DIAGNOSTIC	NUCLEAR RADIOLOGY
2402	RADIOLOGY, DIAGNOSTIC	PEDIATRIC RADIOLOGY
2250	RADIOLOGY, DIAGNOSTIC	RADIATION ONCOLOGY
2403	RADIOLOGY, DIAGNOSTIC	VASCULAR & INTERVENTIONAL RADIOLOGY
2725	SLEEP MEDICINE	GENERAL
2450	SURGERY	GENERAL
2451	SURGERY	CRITICAL CARE MEDICINE
2452	SURGERY	GENERAL VASCULAR SURGERY
2453	SURGERY	HAND SURGERY
2454	SURGERY	PEDIATRIC SURGERY
2455	SURGERY	SURGICAL CRITICAL CARE
2500	SURGERY	THORACIC SURGERY
2525	TRANSITIONAL YEAR (ALLOPATHIC MED.)	GENERAL
2650	UROLOGY	GENERAL
2651	UROLOGY	PEDIATRIC UROLOGY
3100	ANESTHESIOLOGY	GENERAL
3102	ANESTHESIOLOGY	ACUTE & CHRONIC PAIN MANAGEMENT
3101	ANESTHESIOLOGY	CRITICAL CARE MEDICINE
6150	CARDIOTHORACIC VASCULAR SURGERY	GENERAL
3275	CRITICAL CARE SURGERY	GENERAL
3350	DERMATOLOGY	GENERAL
3351	DERMATOLOGY	DERMATOPATHOLOGY
3352	DERMATOLOGY	MOHS MICROGRAPHIC SURGERY
3400	DIAGNOSTIC RADIOLOGY	GENERAL
3150	DIAGNOSTIC RADIOLOGY	ANGIOGRAPHY & INTERVENT'L RADIOLOGY
6500	DIAGNOSTIC RADIOLOGY	BODY IMAGING
4250	DIAGNOSTIC RADIOLOGY	NEURORADIOLOGY
4400	DIAGNOSTIC RADIOLOGY	NUCLEAR RADIOLOGY
5852	DIAGNOSTIC RADIOLOGY	PEDIATRIC RADIOLOGY
5800	DIAGNOSTIC RADIOLOGY	RADIOLOGICAL IMAGING
6450	DIAGNOSTIC RADIOLOGY	VASCULAR & INTERVENTIONAL RADIOLOGY
3450	EMERGENCY MEDICINE	GENERAL
3452	EMERGENCY MEDICINE	EMERGENCY MEDICAL SERVICES
3451	EMERGENCY MEDICINE	SPORTS MEDICINE
3453	EMERGENCY MEDICINE	TOXICOLOGY
3475	EMERGENCY MEDICINE/PEDIATRICS	GENERAL
4975	FACIAL PLASTIC SURGERY	GENERAL
3630	FAM. PRAC. & OST. MANIP. TREATMENT	GENERAL
3600	FAMILY PRACTICE	GENERAL
3604	FAMILY PRACTICE	ADDICTION MEDICINE
3601	FAMILY PRACTICE	ADOLESCENT AND YOUNG ADULT MEDICINE

<u>RES CODE</u>	<u>PRIMARY DESCRIPTION</u>	<u>SECONDARY DESCRIPTION</u>
3602	FAMILY PRACTICE	GERIATRICS
3603	FAMILY PRACTICE	SPORTS MEDICINE
3625	FAMILY PRACTICE/EMERGENCY MEDICINE	GENERAL
3650	GENERAL SURGERY	GENERAL
3700	GENERAL VASCULAR SURGERY	GENERAL
3750	HEMATOLOGY	GENERAL (OBSOLETE - USE CODE 3901)
3900	INTERNAL MEDICINE	GENERAL
3200	INTERNAL MEDICINE	CARDIOLOGY
3250	INTERNAL MEDICINE	CLINICAL ALLERGY & IMMUNOLOGY
3905	INTERNAL MEDICINE	CLIN'L CARDIAC ELECTROPHYSIOLOGY
3903	INTERNAL MEDICINE	CRITICAL CARE MEDICINE
3500	INTERNAL MEDICINE	ENDOCRINOLOGY
3550	INTERNAL MEDICINE	GASTROENTEROLOGY
3904	INTERNAL MEDICINE	GERIATRICS
3901	INTERNAL MEDICINE	HEMATOLOGY
3800	INTERNAL MEDICINE	HEMATOLOGY/ONCOLOGY
3850	INTERNAL MEDICINE	INFECTIOUS DISEASES
3907	INTERNAL MEDICINE	INTERVENTIONAL CARDIOLOGY
4100	INTERNAL MEDICINE	NEPHROLOGY
4600	INTERNAL MEDICINE	ONCOLOGY
3902	INTERNAL MEDICINE	PULMONARY DISEASES
3908	INTERNAL MEDICINE	PULMONARY DISEASES/CRIT. CARE MED.
6000	INTERNAL MEDICINE	RHEUMATOLOGY
3909	INTERNAL MEDICINE	SLEEP MEDICINE
3906	INTERNAL MEDICINE	SPORTS MEDICINE
6300	INTERNAL MEDICINE/EMERG'Y MEDICINE	GENERAL
6350	INTERNAL MEDICINE/PEDIATRICS	GENERAL
4000	MEDICAL DISEASES OF THE CHEST	GENERAL
4300	NEUROLOGICAL SURGERY	GENERAL
4150	NEUROLOGY	GENERAL
4200	NEUROLOGY	CHILD NEUROLOGY
4151	NEUROLOGY	NEUROPHYSIOLOGY
4800	NEUROMUSCULOS. & OST. MANIP. MED.	GENERAL
4801	NEUROMUSCULOS. & OST. MANIP. MED.	ADVANCED & CONCENTRATED TRAINING
4802	NEUROMUSCULOS. & OST. MANIP. MED.	SPORTS MEDICINE
4825	NEUROMUSCULOS. MED./INT. FAM. PRAC.	GENERAL
4350	NUCLEAR MEDICINE	GENERAL
4351	NUCLEAR MEDICINE	IN-VIVO & IN-VITRO NUCLEAR MEDICINE
4352	NUCLEAR MEDICINE	NUCLEAR CARDIOLOGY
4353	NUCLEAR MEDICINE	NUCLEAR IMAGING & THERAPY
4500	OBSTETRICS & GYNECOLOGICAL SURGERY	GENERAL
4450	OBSTETRICS/GYNECOLOGY	GENERAL

RES CODE	PRIMARY DESCRIPTION	SECONDARY DESCRIPTION
4650	OBSTETRICS/GYNECOLOGY	GYNECOLOGICAL ONCOLOGY
3950	OBSTETRICS/GYNECOLOGY	MATERNAL-FETAL MEDICINE
5950	OBSTETRICS/GYNECOLOGY	REPRODUCTIVE ENDOCRINOLOGY
4550	OCCUPATIONAL MEDICINE	GENERAL
4575	OCCUPATIONAL/ENVIRONMENTAL MEDICINE	GENERAL
4700	OPTHAMOLOGY	GENERAL
4750	ORTHOPAEDIC SURGERY	GENERAL
4751	ORTHOPAEDIC SURGERY	HAND SURGERY
4753	ORTHOPAEDIC SURGERY	ORTHOPAEDIC SURG'L SPORTS MEDICINE
4752	ORTHOPAEDIC SURGERY	SPINE SURGERY
4850	OTOLARYNGOLOGY	GENERAL
4851	OTOLARYNGOLOGY	OTOLARYNGIC ALLERGY
4900	OTORHINOLARYNGOLOGY	GENERAL
4950	OTORHINOL'Y/FAC'L PLASTIC SURGERY	GENERAL
5000	PATHOLOGY	GENERAL
5050	PATHOLOGY, ANATOMIC	GENERAL
5075	PATHOLOGY, ANATOMIC & FORENSIC	GENERAL
5100	PATHOLOGY, ANATOMIC/LABORATORY MED.	GENERAL
5200	PATHOLOGY, LABORATORY MEDICINE	GENERAL
5001	PATHOLOGY, LABORATORY MEDICINE	BLOOD BANKING/TRANSFUSION MEDICINE
5002	PATHOLOGY, LABORATORY MEDICINE	CHEMICAL PATHOLOGY
3300	PATHOLOGY, LABORATORY MEDICINE	CYTOPATHOLOGY
5003	PATHOLOGY, LABORATORY MEDICINE	DERMATOPATHOLOGY
5150	PATHOLOGY, LABORATORY MEDICINE	FORENSIC PATHOLOGY
5004	PATHOLOGY, LABORATORY MEDICINE	HEMATOLOGY
5005	PATHOLOGY, LABORATORY MEDICINE	IMMUNOPATHOLOGY
5006	PATHOLOGY, LABORATORY MEDICINE	MEDICAL MICROBIOLOGY
5007	PATHOLOGY, LABORATORY MEDICINE	NEUROPATHOLOGY
5250	PEDIATRICS	GENERAL
5257	PEDIATRICS	ADOLESCENT & YOUNG ADULT MEDICINE
5251	PEDIATRICS	ALLERGY/IMMUNOLOGY
5252	PEDIATRICS	CARDIOLOGY
5260	PEDIATRICS	ENDOCRINOLOGY
5253	PEDIATRICS	HEMATOLOGY/ONCOLOGY
5254	PEDIATRICS	INFECTIOUS DISEASES
5255	PEDIATRICS	INTENSIVE CARE
4050	PEDIATRICS	NEONATAL MEDICINE
5256	PEDIATRICS	NEPHROLOGY
5258	PEDIATRICS	PEDIATRIC PULMONOLOGY
5259	PEDIATRICS	PEDIATRIC SPORTS MEDICINE
5900	PHYSICAL & REHABILITATION MEDICINE	GENERAL
5901	PHYSICAL & REHABILITATION MEDICINE	SPORTS MEDICINE

RES CODE	PRIMARY DESCRIPTION	SECONDARY DESCRIPTION
5300	PLASTIC & RECONSTRUCTIVE SURGERY	GENERAL
5350	PREVENTIVE MED., OCCUP'L/ENVIRON'L	GENERAL
5400	PREVENTIVE MEDICINE	GENERAL
3050	PREVENTIVE/AEROSPACE MEDICINE	GENERAL
5475	PROCTOLOGIC SURGERY	GENERAL
5450	PROCTOLOGY	GENERAL
5500	PSYCHIATRY	GENERAL
5501	PSYCHIATRY	ADDICTION PSYCHIATRY
5550	PSYCHIATRY	CHILD PSYCHIATRY
5502	PSYCHIATRY	GERIATRIC PSYCHIATRY
5600	PSYCHIATRY, GENERAL AND CHILD	GENERAL
5650	PSYCHIATRY, PEDIATRIC	GENERAL
5425	PUBLIC HEALTH & PREVENTIVE MEDICINE	GENERAL
5700	RADIATION ONCOLOGY	GENERAL
5750	RADIATION THERAPY	GENERAL
5850	RADIOLOGY	GENERAL
5851	RADIOLOGY	DIAGNOSTIC ULTRASOUND
6050	ROENTGENOLOGY	GENERAL
6100	ROENTGENOLOGY, DIAGNOSTIC	GENERAL
6550	SPORTS MEDICINE	GENERAL
6200	THORACIC SURGERY	GENERAL
6400	TRAD'L ROT'G INTERN'P (OSTEO. MED.)	GENERAL
6250	UROLOGICAL SURGERY	GENERAL
7050	PODIATRIC ORTHOPAEDIC RESIDENCY	GENERAL
7150	PRIMARY PODIATRIC MEDICAL RESIDENCY	GENERAL
7100	PODIATRIC SURGICAL RESIDENCY	GENERAL
7200	ROTATING PODIATRIC RESIDENCY	GENERAL
8550	ADVANCED EDUC. IN GENERAL DENTISTRY	GENERAL
8050	DENTAL PUBLIC HEALTH	GENERAL
8100	ENDODONTICS	GENERAL
8500	GENERAL PRACTICE DENTISTRY	GENERAL
8200	ORAL AND MAXILLOFACIAL SURGERY	GENERAL
8150	ORAL PATHOLOGY	GENERAL
8250	ORTHODONTICS/DENTOFAC'L ORTHOPEDICS	GENERAL
8300	PEDIATRIC DENTISTRY	GENERAL
8350	PERIODONTICS	GENERAL
8400	PROSTHODONTICS	GENERAL
8450	PROSTHODONTICS MAXILLOFACIAL	GENERAL
9150	RESERVED FOR FUTURE USE	
9200	RESERVED FOR FUTURE USE	
9250	RESERVED FOR FUTURE USE	
9300	RESERVED FOR FUTURE USE	

RES CODE	PRIMARY DESCRIPTION	SECONDARY DESCRIPTION
9350	RESERVED FOR FUTURE USE	
9400	RESERVED FOR FUTURE USE	
9450	RESERVED FOR FUTURE USE	
9500	RESERVED FOR FUTURE USE	
9550	RESERVED FOR FUTURE USE	
9600	RESERVED FOR FUTURE USE	
9650	RESERVED FOR FUTURE USE	
9700	RESERVED FOR FUTURE USE	
9750	RESERVED FOR FUTURE USE	
9800	RESERVED FOR FUTURE USE	
9850	RESERVED FOR FUTURE USE	
9900	RESERVED FOR FUTURE USE	
9950	RESERVED FOR FUTURE USE	

7.4   Help Screens

Main Menu Help

Screen 1:

IRIS data is divided into three groups that are described below.

REFERENCE DATA -- While entering IRIS data, the user selects residency type codes, medical school codes, and employer names from display windows. Residency and medical school tables are supplied and maintained by CMS. The Employer Name Table is created by selecting Main Menu Option <5>.

ADMINISTRATIVE DATA -- The hospital provider number and name, fiscal year (FY) start & end dates, and two flags that determine the display order of the residency and medical school tables are also accessed from Main Menu Option <5>.

INTERN/RESIDENT (IR) DATA -- Assignment Master Records identify an IR, hospital FY, residency years completed and type of residency, and medical school data. Each Master Record can have up to 60 rotational assignments. ASSIGNMENT PERIODS MAY NOT OVERLAP! If 2 or more hospitals share an IR's time, they must coordinate their report to assure that no more than 100 percent of the IR's time is claimed during any assignment period.

Adding New Records

Screen 1:

Intern/Resident records can be added in four different ways:

(1) Create new records from the keyboard using the IRIS data entry screen.

(2) Import System Data Format (SDF) records from ASCII files in which all records are of fixed length, and each record is parsed identically into fields. SDF records use no delimiters or punctuation marks. Character fields are left adjusted (no leading blanks) and numeric fields are right adjusted (no trailing blanks).

(3) Import records from DELIMITED TEXT files in which records vary in length. Character fields are enclosed in quotation marks (") and contain no trailing or leading blanks. All fields are separated by commas.

(4) Append records from Data Base Format (DBF) files that have the same structures as the IRIS databases (IRISMAST.DBF and IRISASGN.DBF). Use this option to move data entered on a diskette/CD into your central databases, or to merge data that were entered on multiple diskettes/CDs.

REFER TO YOUR IRISV3 OPERATING INSTRUCTIONS FOR THE EXACT RECORD LAYOUTS REQUIRED.

Scrolling Data Windows

Screen 1:

Pressing Key(s)	Causes the Program to
<Up Arrow>	Scroll Up 1 record
<Down Arrow>	Scroll Down 1 record
<PgDn>	Display the next screenful of data
<Any Letter or Numeral>	Place the first record whose Key Field begins with the selected character at the top of the screen. NOTE: The Key Field for Residency Type and Medical School Windows is selected by the user in the "Setup Administrative Data" function.
<Ctrl-PgUp>, ##	Scroll Up ## Records
<Ctrl-PgDn>, ##	Scroll Down ## Records
<End>	Quit Scrolling and make a Selection

Social Security Number

Screen 1:

Enter the intern/resident's (IR) Social Security Number (SSN) and press
<Enter>. Include ONLY those IRs who participate in teaching programs
approved under 42 CFR 412.105(f) and 413.75(b).

In IRISV3, SSNs are ten character strings. The first character must contain
either "U" (US) or "C" (Canada). This character is used for dual tracking
of nine digit United States SSNs and nine digit Canadian Social Insurance
Numbers as identification numbers. Characters two through ten must contain
numerals between zero (0) and nine (9).

The first character always defaults to "U" in new records. To enter "C",
simply type over the "U".

NOTE: You may escape from the data entry screen by entering a blank SSN.

Intern/Resident Name

Screen 1:

Enter the intern/resident's complete first name, middle initial, and last
name. Do not use nicknames or abbreviations such as Bob in lieu of Robert
or Chuck or Charlie in lieu of Charles. Do not use suffixes such as "Jr."
or "II". If the last name is more than 20 characters long, use only the
first 20 characters.

Employer's Name

Screen 1:

Select the name of the hospital or provider that is currently paying the
intern/resident's (IR) salary. The user can add another name to the
Employer Name Table if a different hospital or provider is involved in
paying the IR's salary. The user can add, modify or delete these names in
this table from option <2> of the IRIS Reference Data Management Menu.
This menu is activated through option <5> of the IRIS Main Menu.

Residency Type Code (Master Record)

Screen 1:

Enter the 4 digit Residency Type Code for the medical specialty program in which the intern/resident (IR) is seeking Board certification. These codes are grouped as follows:

```
1050-2955   Allopathic specialties
3050-6550   Osteopathic specialties
7050-7200   Podiatric specialties
8050-8550   Dental specialties
9050-9100   Other specialties (emergency medicine)
9150-9950   Reserved for future use
```

If you do not know the code for the specialty you wish to enter, enter a blank code and select the appropriate code from a display window.

Some specialties include one or more subspecialties, each of which is assigned a separate code. In addition, many of the allopathic specialties are similar to osteopathic specialties, which are assigned a different set of unique codes. That is, the allopathic specialty code for internal medicine is 1400; the osteopathic specialty code for internal medicine is 3900.

YOU MUST ENTER A VALID RESIDENCY TYPE CODE TO SAVE AN IR'S DATA RECORDS.

Residency Type Code (Master Record)

Screen 2:

NOTES

1. Some allopathic specialties require a year of broad-based training as a prerequisite for subsequent training. This requirement is met as follows:

   a. The year of broad-based training (preliminary year) is included in the accredited length of the program listed in the GRADUATE MEDICAL EDUCATION DIRECTORY (GMED). If the IR begins training in a program that incorporates the year of broad-based training, the initial residency period for that specialty is equal to the period listed in the GMED. Enter the residency type code (RTC) for the IR's subsequent specialty program. It is the hospital's responsibility to maintain documentation on those IRs that have simultaneously matched for the preliminary year and the subsequent specialty. Refer to 42 CFR 413.79(a)(10).

   b. The IR completes a transitional year program in allopathic medicine as a prerequisite for subsequent specialty training. Enter RTC 2525 (TRANSITIONAL YEAR) in the IR's first program year. In the IR's second program year, enter the RTC for the specialty in which the IR is training. If a prerequisite year is required for this specialty, the initial residency period listed in the GMED incorporates the transitional year.

Residency Type Code (Master Record)

Screen 3:

NOTES (Continued)

c. The IR completes the prerequisite year through a year of training in
another specialty. Enter the RTC for the residency program in which the
IR begins training. The initial residency year is equal to the period
listed in the GMED for the initial specialty in which the IR is training
even if the IR is completing the year of training as a prerequisite for
another specialty.

2. If an IR changes his/her specialty during the reporting period, report the
INITIAL specialty, i.e., the specialty the IR was participating in on the
FIRST DAY OF THE FIRST ASSIGNMENT PERIOD OF THE REPORTING PERIOD. NOTE: Even
if a FIRST YEAR IR changes his/her specialty during the reporting period,
show the INITIAL specialty, i.e., the specialty program in which the IR was
seeking Board certification on the first day of the first assignment period.

3. IRs in a traditional rotating internship year in osteopathic medicine must
be assigned RTC 6400 (TRADITIONAL ROTATIONING INTERNSHIP). This internship
year is the first year of post-graduate training for graduates of osteopathic
medical schools. Like transitional year programs, the osteopathic rotating
internship provides a year of broad-based training.

Residency Type Code (Master Record)

Screen 4:

                              NOTES (Continued)

4. For IRs beginning training in general emergency medicine on or after
August 30, 1996, enter RTC 1250 (EMERGENCY MEDICINE). The initial residency
period for these IRs will be 3 years. For IRs beginning training on or after
July 1, 1995 and before August 30, 1996 in general emergency medicine, assign
either RTC 9050 (EMERGENCY MEDICINE - 3 YEAR PROGRAM) or RTC 9100 (EMERGENCY
MEDICINE - 4 YEAR PROGRAM).

5. Some of the residency types in the table of residency codes originated
from the Table of Initial Residency Period Limitations in the August 30, 1996
FEDERAL REGISTER (61 FR 46208-46211). The rest of these types are based on
descriptions of residency types from the following organizations: American
Medical Association, American Osteopathic Organization, American Dental
Educational Association, and the American Podiatric Medical Organization.

6. The Residency Type selection window always displays the same information
but the order in which Residency Types are displayed (e.g., by code or by
description) can be changed by selecting "Setup Administrative Data" from
option <5> in the IRIS Main Menu.

Residency Years Completed (Master Record)

Screen 1:

Enter the total number of program years the intern/resident (IR) has
COMPLETED in ALL types of approved residency programs as of July 1 of the
fiscal year for which you are reporting. For example, enter "0" if the IR
has completed less than one program year in all types of approved programs,
"1" if the IR has completed less than two program years in all types of
approved programs, etc. The range for the total number of program years
is 0 through 9. Enter "9" if the total number of program years exceeds
9 years.

NOTE: Include time spent in transitional year programs as discussed in the
Help Screen notes on "Type of Residency".

Medical School Code

Screen 1:

Enter the five digit code for the medical school from which the
intern/resident (IR) graduated. If you do not know the code, enter a blank
field to open a selection window for the desired code. Enter "99998" for
foreign dental school or "99999" for foreign medical school if the IR did
not graduate from an allopathic, osteopathic, dental, or podiatry school
accredited or approved as having met the standards necessary for
accreditation by one of the following organizations: the Liaison Committee
on Medical Education of the American Medical Assoc., American Osteopathic
Assoc., Commission on Dental Accreditation, and Council on Podiatric Medical
Education. Medical schools are grouped as follows:

```
00102-06801      Allopathic or Osteopathic Schools
10000 & 20000    Dental Schools (Obsolete – use Codes 80002-80109)
30000-30700      Podiatric Schools
80002-80109      Dental Schools
99998            Foreign Dental Schools
99999            Foreign Medical Schools
```

The Medical School selection window always displays the same information but
the order in which medical schools are displayed can be changed by selecting
"Setup Administrative Data" from option <5> in the IRIS Main Menu.

Medical School Graduation Date

Screen 1:

IRISV3 REQUIRES A COMPLETE DATE IN THIS FIELD. Enter the date the
intern/resident graduated from medical school in the format "mm/dd/yyyy".
Months and days must both be entered with leading zeroes such as
"06/08/2001" for June 8, 2001. If the graduation month is known and the
specific day of the month is unknown, enter the first day of the month.

Foreign Student Certification

Screen 1:

IRISV3 REQUIRES A COMPLETE DATE IN THIS FIELD. This field is activated only
if medical school code "99999" is entered. Enter the date the IR passed the
United States Medical Licensing Examination (USMLE), Foreign Medical Graduate
Examination in the Medical Sciences (FMGEMS), OR Parts I and II of the
National Board of Medical Examiners Examination OR prior to July 1, 1986,
received certification from, or passed an examination of, the Educational
Committee for Foreign Medical Graduates (ECFMG). Use format "mm/dd/yyyy".
Months and days must both be entered with leading zeroes such as "06/08/2001"
for June 8, 2001. If the certification month is known and the specific day of
the month is unknown, enter the first day of the month.

NOTE: Beginning June 1, 1992, foreign medical school graduates (FMSG) had the
option of taking either the USMLE or the FMGEMS. Effective July 1, 1993,
FMSGs MUST pass Step 1 (Basic Science) and Step 2 (Clinical Science) of the
USMLE. Effective June 14, 2004, FMSGs are required to pass Step 1, Step 2

Clinical Knowledge (CK) and Step 2 Clinical Skills (CS) for certification from
the ECFMG. Do not use either the issuance date or the English examination
date on the ECFMG certificate as the certification date. Instead use the
latest examination date of any other examination as the certification date.
For example, if the FMSG passed the CK test on May 15, 2004 and the CS test on
July 1, 2004, then the certification date is the later date of July 1, 2004.

Assignment (Rotation) Time Periods

Screen 1:

IRISV3 REQUIRES COMPLETE DATES IN THIS FIELD. Enter start and end dates of
each rotational assignment during which the intern/resident (IR) was assigned
to and worked at the hospital or any of its hospital based providers (Home
Health Agency, Skilled Nursing Facility, etc.) Use format "mm/dd/yyyy".
Months and days must both be entered with leading zeroes such as "06/08/2001"
for June 8, 2001.

Include any time the IR worked in non-hospital settings such as freestanding
clinics, nursing homes, and physicians' offices in connection with approved
programs, if the IR spent time in patient care activities, and: 1) there is a
written agreement between the hospital and the non-hospital site or entity
stipulating that the hospital pays the IR's salary for training time outside
the hospital setting; 2) the hospital must incur all or substantially all of
the costs for the training program in the non-hospital setting; and 3) the
hospital is subject to the principles of community support and redistribution
of costs. Refer to 42 CFR 412.105(f) and 413.78(e).

Assignment (Rotation) Time Periods

Screen 2:

All start and end dates MUST LIE WITHIN THE FISCAL YEAR for which you are
reporting, and assignment periods MAY NOT OVERLAP! For example, if the
fiscal year runs from October 1, 2002 to September 30, 2003, and an
assignment period runs from July 1, 2003 to November 30, 2003, the
assignment period to be reported during this reporting year is July 1, 2003
to September 30, 2003. The end date MAY NOT BE LATER than the end of the
hospital's cost reporting period.

If, however, the assignment period spans July 1 within the fiscal year for
which you are reporting, enter this assignment period as two periods. For
example, if the fiscal year runs from October 1, 2002 to September 30, 2003,
and an assignment period runs from May 1, 2003 to November 30, 2003, the
assignment periods to be reported during this reporting year are as follows:
May 1, 2003 to June 30, 2003; and July 1, 2003 to September 30, 2003. Again
the end date MAY NOT BE LATER than the end of the hospital's cost reporting
period.

NOTE: IRIS provides space (fields) to report 60 individual rotations for an
IR.

Full Time/Part Time Percentage

Screen 1:

Enter "100" percent if the intern/resident (IR) worked full time during the

assignment period. If the IR worked part time during this period, enter the
IR's percentage of an FTE (full-time equivalent). Information indicating
the IR's percentage of less than full time should be available in either an
employment contract or a letter from the accrediting organization such as
the Accreditation Council on Graduate Medical Education. A hospital must
receive permission from the accrediting organization to allow an IR to work
part time in an approved specialty program. Refer to 42 CFR 412.105(f) and
413.78(b).

IME Percentage

Screen 1:

Enter the percentage of time the intern/resident (IR) worked in the inpatient
area of the hospital subject to PPS, or in the outpatient department during
the assignment period. Include the time the IR worked in a non-hospital
setting under agreement with the hospital during the assignment period.
Refer to 42 CFR 412.105(f).

If the IR worked in more than one hospital or non-hospital setting, enter the
percentage of time spent in the inpatient and/or outpatient areas of the
hospital as compared to the total time worked at all facilities. Example:
an IR worked 4 hours/day in the inpatient area of hospital A and 8 hours/day
in hospital B. Hospital A would report 33% under Indirect Medical Education
(IME). If the IR worked an additional 4 hours/day in hospital A's home
health unit, which cannot be included in the IME computation, hospital A
would report 25% (4 inpatient hours at hospital A divided by 16 total hours).

NOTE - The IME percentage may be computed based upon hours, days, or months
(if appropriate). No more than 100%, in the aggregate, may be reported for
any IR, by all hospitals reporting. HOSPITALS MUST COORDINATE IME DATA
(ESPECIALLY FOR THOSE IRs WORKING IN MORE THAN ONE HOSPITAL) REPORTED IN
IRIS.

GME Percentage

Screen 1:

Enter the unweighted percentage of time the intern/resident (IR) worked in
any area of the hospital complex or in a non-hospital setting under agreement
with the hospital during the assignment period. This percentage of time is
not weighted for IRIS reporting purposes, and is to be weighted outside of
IRISV3 for Medicare cost reporting purposes. Refer to 42 CFR 413.78.

If the IR worked in more than one hospital or non-hospital setting not under
agreement with the hospital during the assignment period, enter the
percentage of time worked in the hospital in comparison to the total time
worked at all facilities. Example: an IR worked 4 hours/day at hospital A
and 8 hours/day at hospital B. Hospital A would report 33% under Graduate
Medical Education (GME). If the IR worked 4 days a week at hospital A and 3
days a week at hospital B, hospital A would report 57% (4 days at hospital A
divided by 7 total days).

NOTE - The GME percentage may be computed based upon hours, days, or months
(if appropriate). No more than 100%, in the aggregate, may be reported for
any IR by all hospitals reporting. HOSPITALS MUST COORDINATE GME DATA
(ESPECIALLY FOR THOSE IRs WORKING IN MORE THAN ONE HOSPITAL) REPORTED IN
IRIS.

Residency Years Completed (Assignment Records)

Screen 1:

For the first rotational assignment, enter the residency year (RY). The RY
is the number of years the intern/resident (IR) has COMPLETED in all types of
approved residency programs. For example, enter "0" if the IR has completed
less than one program year in all types of approved programs, "1" if the IR
has completed less than two program years in all types of approved programs,
etc. The range for the total number of program years is 0 through 9. Enter
"9" if the total number of program years exceeds 9 years. If the RY for any
subsequent rotational assignments is not entered, the IRISV3 program will
assign the same number of years completed as previously entered for the first
rotational period. If the RY is entered manually for successive rotations,
enter the number of years completed as of the first day of the rotation.

NOTE: Include time spent in transitional year programs as discussed in the
notes in the Help Screens for Residency Type Code (Master Record).

Residency Type Code (Assignment Records)

Screen 1:

For the first rotational assignment, enter the 4 digit Residency Type Code
(RTC) for the medical specialty program in which the intern/resident (IR) is
training if this program is different from the RTC that was entered in the
master record. For example, enter RTC 2525 for the IR's transitional year if
the master record contains RTC 2650 for the IR's intended Board certification
in urology. If the RTC is not entered for any subsequent rotational
assignment, the IRISV3 program will assign the same RTC as was previously
entered for the first rotational assignment. If the RTC is entered manually
for successive rotations, enter the RTC on the first day of the rotation.
These codes are grouped as follows: Codes 1050-2955 (Allopathic specialties);
3050-6550 (Osteopathic specialties); 7050-7200 (Podiatric specialties);
8050-8550 (Dental specialties); 9050-9100 (Other specialties (emergency
medicine)); and 9150-9950 (Reserved for future use).

If you do not know the code for the specialty or sub-specialty that you wish
to enter, enter a blank code and select the appropriate code from a display
window.

NOTE: Read the notes in the Help Screens for Residency Type Code (Master
Record) for information on transitional year programs, re-ordering the
residency code table in the selection window, and other items of interest.

Searching for Resident Data (Browse, Change, Delete Functions)

Screen 1:

To Browse, Edit, or Delete Intern/Resident (IR) Data, you must first locate
the Master Record you are interested in. You may search for a Master Record
by Social Security Number (SSN), IR's Last Name, Residency Type Code, or the
Medical School Code from which the IR graduated. Finally, you may search the
entire file in IR name order.

Select your search option by pressing a number from 1 to 5. If 1 through 4
is pressed, IRIS will prompt you for a "search string". You may enter a
complete SSN, Name, or Code, or just the first few characters. For example,

if you select 2, and then type "JO", IRIS will display master records in last
name order, starting with the first last name that begins with "JO". If you
selected 1 or 2, IRIS will force you to reenter the search string until you
enter characters that exist in at least one Master Record. If you entered
3 or 4, IRIS will display the message "Search Failed" if it cannot locate the
search string you entered.

After IRIS displays the Master Records, follow the instructions at the
bottom of the screen to scroll until the record you want is visible,
then press <End>. Press <Esc> to end and/or restart the search procedure.

III. Description of Changes/Modifications to June '98 Release, IRISV3

June '98 Release, IRISV3 (Version 3.01)

- Residency Year (Assignment Record) -

  The edit was changed from (ARESYEAR must be equal to RESYEAR or plus 1 year to RESYEAR) to (ARESYEAR must be equal to RESYEAR or plus 1 year to RESYEAR or minus 1 year from RESYEAR).

- Fiscal Year Change (Administrative Data) -

  Changes made to the previously entered fiscal year begin and end dates in the Administrative Data section of IRIS now updates all master and assignment records with the changed dates.

- Evaluation of Imported Data Reports -

  The social security number field on the evaluation report was made large enough to accommodate a ten character social security number.

IV.   Description of Changes/Modifications to June '99 Release, IRISV3

June '99 Release, IRISV3 (Version 3.1)

- All dates are now entered and presented as complete dates as in "mm/dd/yyyy"***** for Y2K compliance. Shown below are revised structures for tables IRISASGN.DBF and IRISMAST.DBF:

REVISED Structure for table **IRISASGN.DBF**

Field Name	Type	Length	Usage
PROVNUMBER	CHARACTER	6	999999
SSN	CHARACTER	10	A999999999
FYBEGIN	DATE	8	mm/dd/yyyy*****
TIMEPERC	NUMERIC	3	999
IMEPERC	NUMERIC	3	999
GMEPERC	NUMERIC	3	999
ASGNBEGDAT	DATE	8	mm/dd/yyyy*****
ASGNENDDAT	DATE	8	mm/dd/yyyy*****
ARESYEAR	NUMERIC	1	9
ARESTYPE	CHARACTER	4	9999

REVISED Structure for table **IRISMAST.DBF:**

Field Name	Type	Length	Usage
SSN	CHARACTER	10	A999999999
FNAME	CHARACTER	14	AAAAAAAAAAAAAA
MNAME	CHARACTER	1	A
LNAME	CHARACTER	20	AAAAAAAAAAAAAAAAAAAA
EMPLOYER	CHARACTER	50	AAAAAAAAAAAAAAAAAAAAAA...
RESTYPCODE	CHARACTER	4	9999
RESYEAR	NUMERIC	1	9
MEDSCHOOL	CHARACTER	5	99999
MSGRADDATE	DATE	8	mm/dd/yyyy*****
FORCERTDAT	DATE	8	mm/dd/yyyy*****
PROVNUMBER	CHARACTER	6	999999
FYBEGIN	DATE	8	mm/dd/yyyy*****
FYEND	DATE	8	mm/dd/yyyy*****
CREATEDATE	DATE	8	mm/dd/yyyy*****
MODIFYDATE	DATE	8	mm/dd/yyyy*****

  *- Date fields in text files are formatted as: yyyy/mm/dd

- The program now handles the leap year date of February 29, 2000 for Y2K compliance.

- Pages 1-3, 1-5, 1-6, 7-20, 7-22, and 7-26 through 7-28 contain deletions and additions; deletions are indicated by lined-out characters, and additions are indicated by shaded characters.

V.   December 2005 Updates to June '99 Release, IRISV3

June '99 Release, IRISV3 (Version 3.1)

- Except for reproductions of IRISV3 screen printouts in the IRISV3 Operating Instructions, all references to HCFA (Health Care Financing Administration) were replaced with CMS (Centers for Medicare & Medicaid Services); no programming changes were made to the IRISV3 program to replace references to HCFA with CMS.

- Except for reproductions of IRISV3 screen printouts in the IRISV3 Operating Instructions, all references to IRIS disk or diskette were replaced with IRIS disk/CD or diskette/CD; no programming changes were made to the IRISV3 program to replace references to Disk or Diskette with Disk/CD or Diskette/CD.

- The last line on Page 1-1 (Part II, Section 1.1) is revised as follows: "If you need further assistance, send e-mail to: iris@cms.hhs.gov."

- The required equipment on Page 1-5 (Part II, Section 1.4) is updated to include these items: any modern 100% **IBM compatible PC;** a CD-R/RW drive in addition to a 3.5 inch diskette drive; and a PC compatible printer, preferably one that can print at twelve characters per inch.

- Information on running IRISV3 in the Windows NT (NT, 2000, and XP) family of operating systems is updated on Page 1-6 (Part II, Section 1.5).

- The installation instructions on Pages 1-7 thorough 1-9 (Part II, Section 1.6) are superseded by the December 2005 "Read Me First File" for installing the IRISV3 program; this file ("Read Me IRISV3") is in the CMS web site for IRIS programs.

- The Federal Register citation for GME in the first line on Page 3-1 (Part II, Section 3.1) is changed from 42 CFR 413.86 to 42 CFR 413.75.

- The Medical School Code Table (Part II, Section 7.2) is updated through December 2005; this table includes revised codes for six of eight podiatry schools (Codes 30100 through 30600) and new codes for dental schools in the United States, Canada, and Puerto Rico (Codes 80002 through 80109). The replaced codes (Codes 30010 through 30090 for podiatry schools and Codes 10000 and 20000 for all dental schools) are in this table and are identified as obsolete. These updated codes (revised, replaced and new) are highlighted in yellow for easy identification.

  Providers are to use the new dental school codes in IRISV3 for cost reporting periods beginning on or after July 1, 2006 for all interns and residents in dental specialties with dental school graduation dates after April 30, 2006.

- The Residency Code Table (Part II, Section 7.3) is updated through December 2005; this table is in numerical order. The updated codes in this table are highlighted in yellow for easy identification.

  Providers may start using the new residency type codes in IRISV3 for cost reporting periods ending on or after December 31, 2005.

- The Residency Code Table (Part II, Section 7.4) contains the same codes in the Residency Code Table (Part II, Section 7.3); this table is in alphabetical order. The updated codes in this table are highlighted in yellow for easy identification.

- The following modifications were made to the Help Screens (Part II, Section 7.5): 1) adding a replacement category of dental schools in the medical school codes; 2) recodified Code of Federal Register citations for GME and IME; 3) determining the applicable certification date for passing the ECFMG examination; 4) clarifying the full/part time status of each intern/resident (IR); 5) reporting assignment periods spanning July 1; 6) reporting residency type codes (master/assignment records) for each IR; 7) defining which employer's name to use for each IR; 8) clarifying the number of residency years completed (master/assignment records) for each IR; and 9) reporting unweighted GME percentages for all IRs. These modifications are highlighted in yellow for your information and are not included in the IRISV3 program since no efforts were made to reprogram the Help Screens in IRISV3.

- The last bullet point on Page 8-2 (Part II, Section IV) is inapplicable for this version of IRISV3 Operating Instructions since the deletions and additions have been removed in their entirety.

Read Me First File∗ (rfudirv3.pdf)
∗− Updated December 2005

Important Information for Installing and Operating the IRISV3 Program:

Before downloading Version 3.1 of the IRISV3 program from the CMS web site, read the entire contents of this file as shown below:

Contents

1. Required Equipment
2. Additional Software Required to Run IRISV3
3. Installation
4. Operation
5. Printing IRISV3 Reports
6. Concluding Remarks

1.   Required Equipment

This section describes the computer hardware needed to run IRISV3. IRISV3 will run on any modern 100% **IBM compatible personal computer (PC)** equipped with:

- [REQUIRED] A 3.5 inch disk drive or CD-R/RW drive.

- [REQUIRED] A fixed (hard) drive with at least 10 megabytes of dedicated space available and 8 megabytes of random access memory (RAM).

- [REQUIRED] A PC compatible printer, preferably one that can print at twelve characters per inch.

Warning: IRISV3 is a single user program. In some cases it can be run from a network file server, but should not be used in a multi-user environment (that is, with more than one user entering or changing data at the same time).

2.   Additional Software Required to Run IRISV3

- [REQUIRED] **MS-DOS**, Version 5 or higher supplied with the Windows 9x (95, 98 and ME) family of operating systems, or the **MS-DOS Virtual Machine** supplied with the Windows NT (NT, 2000, and XP) family of operating systems (see note below on Windows operating systems).

- [RECOMMENDED] If you have access to:

    - dBASE 4 or higher (preferred), or any database program whose data file format is compatible with dBASE III Plus (ACCESS, FOXBASE, PARADOX, and others); or

    - any spreadsheet program that can import dBASE data.

    These programs will enable you to access and use your IRIS diskette/CD files ("M3xxxxxx.dbf" and "A3xxxxxx.dbf" where xxxxxx is the provider's six-digit Medicare identification number) without using the IRISV3 program as an interface.

Note: IRISV3, an MS-DOS based application, will run under various Windows operating systems. However, you may experience difficulties running this program in certain installations of the Windows NT family of operating systems.

Discussions of running MS-DOS programs under the Windows NT family of operating systems can be found at the following two Microsoft Web pages: http://support.microsoft.com/kb/q196453/ and http://support.microsoft.com/kb/314106/EN-US/. Note that much of the information contained on those two pages also applies to earlier versions of this family of operating systems.

In addition, we have found that a certain user rights issue sometimes prevents some DOS programs from running under XP. It is not sufficient to give the Authenticated Users group full control of the folder in which the program and data files are located. Instead the local user account (Users(Computer Name\Users)) must be given full control rights to this folder.

In any case it is recommended that you consult with your organization's technical support staff to help resolve any DOS/Windows incompatibility issues that may arise.

3.   Installation

IRISV3 is designed for execution from your computer's hard disk. You will install IRISV3 on drive C (use a different hard drive designation letter if drive C is unavailable for installing software applications), but if you want to run from a network drive or a different partition, simply copy the entire system onto the appropriate drive when installation is complete and leave the original on drive C as a backup.

Before you begin installation, make sure there is at least 10 megabytes of open space on your hard drive that can be dedicated to IRISV3, and read the instructions below thoroughly before you begin installation:

(a)   To begin installation, start your computer, and wait for the Start button to appear.

Click on Start, point to Programs or Accessories to click on Windows Explorer, and click on "(C:)". Then position the cursor to the top of the screen and click on File, point to New, and click on Folder.

At this point you will create a new folder called IRISV3 on your hard drive to house the IRISV3 program. Just type "irisv3" (do not type in the quotations) as the folder name for the folder housing the IRISV3 program; make sure that this folder name or another folder name of your choice is limited to 8 alphanumeric characters.
(Note: If you previously installed the IRISV3 program in the IRISV3 folder, it is recommended that you copy four files (empnames.dbf, irisadm.dbf, irisasgn.dbf, and irismast.dbf) from the IRISV3 folder into another folder on your hard drive, LAN drive, diskette, or CD. You may then copy these files to the IRISV3 folder after reinstalling the IRISV3 program in this folder. See the instructions below for reinstalling the IRISV3 program and reinstate the data from the copied files by implementing the program initialization instructions in 3.(d) below.)

Installation/Reinstallation of IRISV3 program:

Click on Start, point to Programs or Accessories to click on Internet Explorer
Position the cursor in the Internet address space
Type "http://cms.hhs.gov/IRIS/"
Click on "Download IRISV3 (Ver. 3.1) Now" in the Downloads sector at the bottom of the CMS web site page for
    "IRIS Software Files"
Click on the Save button at the bottom of the File Download screen, save the file named "irv3wfud.zip" in the "c:\irisv3"
    folder, click on the Close button in the Download Complete screen, and click on the Close button icon ("x") on the
    top of the screen to leave the CMS web site
Go to "c:\irisv3", double-click on the "irv3wfud.zip" file, and click on the "Extract" button at the top of the WinZip screen
Make sure "c:\irisv3" is in the "Extract to" space before clicking on the Extract button at the top of the right-hand corner
    of the Extract screen

If the "Confirm File Overwrite Screen" appears, then click on the Yes to All button on the bottom of this screen and then click on the Close button icon ("x") on the top of the screen to leave this listing of extracted files

If the "Confirm File Overwrite Screen" does not appear, then Click on the Close button icon ("x") on the top of the screen to leave this listing of extracted files

Continue with the installation/reinstallation instructions in 3.(b) through (d) below.

(b) Checking your MS-DOS Configuration. Before you can run IRISV3, you must check to see that MS-DOS is properly configured for operating this program. To do this, read and execute the following instructions carefully. This step must be performed on drive C, regardless of the drive letter on which the program was installed.

(1) For PCs with Windows 9x Family of Operating Systems:

First determine whether a file named CONFIG.SYS exists in the root directory on drive C. Then issue these commands:

Click on Start
Point to Find or Search to click on Files or Folders
Type "config.sys" to the right of "Named" [file or folder]
Make sure "(C:)" appears to the right of "Look in" [drive]; if not, click on the inverted triangle and click on "(C:)"
Click on Find Now button
Double-click on "config.sys" in the "C:\" folder
If necessary, open up this file by scrolling down to Notepad, click on Notepad and click the OK button

If CONFIG.SYS exists, it is essential that it contain two important lines. One begins with the word "BUFFERS" and the other begins with the word "FILES". If both exist, and both lines contain numbers greater than 29 (it is recommended that both lines contain the high number 99), you may proceed to step 3.(c) after clicking on the Close button icon for the Notepad and "Find:Files..." screens.

If CONFIG.SYS does not exist or if it needs modification, create/update this file as follows:

Click on Start
Point to Programs or Accessories
Click on Notepad
Click on File
Click on New or Open "config.sys" in the "(C:)" drive (be sure to type "config.sys" as the file name to open up this file)
Type the lines or correct the numbers on the lines as follows:

  buffers=99
  files=99

Click on File
Click on Save As
Make sure "(C:)" appears to the right of "Save in" [drive]; if not, click on the inverted triangle and click on "(C:)"
Just type "config.sys" to the right of "File name"
Click on the Save button and click on "Yes" if "config.sys" already exists
Click on the Close button icon to leave the "config.sys" file

(2) For PCs with Windows NT Family of Operating Systems:

First determine whether a file named CONFIG.NT exists in the System32 folder within the Winnt folder (e.g., c:\winnt\system32) on drive C. Then issue these commands:

      Click on Start
      Point to Find or Search
      Click on Files or Folders
      Type "config.nt" to the right of "Named" [file or folder]
      Make sure "(C:)" appears to the right of "Look in" [drive]; if not, click on the inverted triangle and click on "(C:)"
      Click on Find Now button
      Double-click on the "config.nt" file in the "c:\winnt\system32" folder
      Scroll down to the bottom of this file for the configuration commands
      Click on Start
      Point to Find or Search
      Click on Files or Folders
      Type "config.nt" to the right of "Named" [file or folder]
      Make sure "(C:)" appears to the right of "Look in" [drive]; if not, click on the inverted triangle and click on "(C:)"
      Click on Find Now button
      Double-click on the "config.nt" file in the "c:\winnt\system32" folder
      Scroll down to the bottom of this file for the configuration commands

      If CONFIG.NT exists, it is essential that it contain two important lines. One begins with the word "BUFFERS" and the other begins with the word "FILES". If both exist, and both lines contain numbers greater than 29 (it is recommended that both lines contain the high number 99), you may proceed to step 3.(c). after clicking on the Close button icon for the Notepad and "Find:Files..." screens.

      If CONFIG.NT does not exist or if it needs modification, create/update this file as follows:

      Click on Start
      Point to Programs or Accessories
      Click on Notepad
      Click on File
      Click on New or Open "config.nt" (click on "C:\", click on "Winnt", click on "system32", type "config.nt" as the file
        name to open up this file, and click on the Open button)
      If necessary, scroll down to the bottom of this file for the configuration commands
      Type the lines, or correct the lines or numbers on the lines as follows:

        buffers=99
        files=99

      Click on File
      Click on the Save button and click on "Yes" if "config.nt" already exists
      Click on the Close button icon to leave the "config.nt" file

  (3) Reboot or restart your computer to activate the changes you just made.

(c)   The program is now installed and ready to use. Always move to the IRISV3 folder before executing the program.
    To start IRISV3 from Windows Explorer, issue these commands:

    Click on Windows Explorer
    Click on My Computer
    Click on the "irisv3" folder in the C drive
    There are 3 options for operating the IRISV3 program: 1) Double-click on the "irisv3.exe" file in the middle of the
      IRISV3 folder; 2) right click on the "irisv3.exe" file and click "Open"; or 3) click on Start, click on Run, type "cmd" and
      press the Enter key (<Enter>) to activate the DOS command screen, type "c:" and press <Enter>, type "cd\irisv3"
      and press <Enter>, type "irisv3.exe" and press <Enter> to run the IRISV3 program (note: after exiting the IRISV3
      program, type "exit" to leave the DOS command screen
    If necessary, click on the Maximum button icon to enlarge the IRISV3 screens

(d)   Program Initialization. The following steps must be performed the first time you run IRISV3. Do not attempt to execute any other IRISV3 functions until this step is complete. Before proceeding, note that data entry in IRISV3 is not case sensitive; that is, all alphabetic characters are presumed to be upper case.

Start IRISV3 as in 3.(c). above:

Select "**Reference Files/Data Management**" from the IRIS Main Menu by pressing <5> and run each of the first four procedures in the next menu that appears. The "**IRIS REFERENCE DATA MANAGEMENT**" menu reappears after each procedure is completed.

(1) First, select "**Set up Administrative Data**" by pressing <1>, and answer the prompts that appear on the screen. One of these prompts has space for entering a file path, and each piece of the path should not exceed 8 character elements. Be sure to press the letter "**S**" to save the entered data.

(2) Second, select "**Employer Names**" by pressing <2> and enter the list of employer names for the resident data selection list. If this step is not implemented, only the provider name that was created in the first procedure will be the sole employer name in this list.

(3) Third, select "**Rebuild Data Indexes**" by pressing <3>. This causes IRISV3 to create index files which enable the program to search and display data in various orders that are required by the different program functions.

(4) Fourth, select "**Generate Data Help Windows**" by pressing <4>. This causes IRISV3 to create the text screens that are used when the help key is pressed during program execution.

After completing these four procedures, select "**Exit**" by pressing <X>.

4.   Operation

You are now ready to run IRISV3. Be sure to familiarize yourself with the contents of IRISV3 Operating Instructions and explicit instructions for entering data into the IRISV3 program before running IRISV3. A copy of these instructions (irv3dfu6.pdf) is in the IRISV3 folder. To obtain a printout of these instructions and other information, use Adobe Acrobat Reader (Version 6.0 or later version) to open up this file and print it in HP LaserJet or equivalent mode for best results.

5.   Printing IRISV3 Reports

(a)   Local printers. Some users may experience difficulties in getting Windows to print reports from their locally attached printer. It is suggested that you make arrangements with a member of your organization's technical support and have them consider these selections as a possible solution to printing reports from the IRISV3 program as follows:

(1) For PCs with Windows 9x Family of Operating Systems:

Click on Start, point to Settings, click on Printers, and click your right mouse button on the local printer icon
Click on Properties
Click on Details and click on the Port Settings button
If necessary, remove the check mark from both settings in the "Configure LPT Port" screen and click the OK button
Click on Spool Settings, click on Print Directly to Printer, and click the OK button
Click on the Close button icon to leave the "Properties" and "Printers" screens

It is also suggested that you or your organization's technical support person contact your printer's manufacturer or visit their website for guidance on how to print from a DOS application on Windows 95, 98 or ME.

    (2) For PCs with Windows NT Family of Operating Systems:

        Click on Start, point to Settings, click on Printers, and click your right mouse button on the local printer icon
        Click on Properties
        Click on Advanced, click on Print Directly to Printer, and click the OK button
        Click on the Close button icon to leave the "Properties" and "Printers" screens

(b) Network printers. If you are using a network printer instead of a locally attached printer, it is suggested that you make arrangements with a member of your organization's technical support and have them consider this possible solution to printing reports from the IRISV3 program:

    (1) For PCs with Windows 9x Family of Operating Systems:

        Click on Start, point to Settings, click on Printers, and click your right mouse button on the local printer icon
        Click on Properties
        Click on Details and click on the Capture Port Settings button
        Click on the LPT printer port (e.g., LPT3) for the network printer and click the OK button
        Click on the Close button icon to leave the "Properties" and "Printers" screens

    (2) For PCs with Windows NT Family of Operating Systems:

        The Windows NT command to use for running DOS applications in regard to redirecting LPT1 to a network printer in a Windows NT environment is:

          NET USE LPT1\\servername\printersharename/persistent:yes

        An example of a server name would be RICAPP04, and an example of a printer share name is AUD_AUTO.

        This command should be issued from a command line before starting any DOS applications. In other words, a command line can be run by clicking on the Start button and selecting the Run option. In the "Open" field, type CMD, then click on "Okay". This will start a Command Line session.

        Before closing, if you wish to restore LPT1 as a local printer, the command line to use is:

          NET USE LPT1/DELETE

6.   <u>Concluding Remarks</u>

It is recommended that you make a copy of these instructions for installing and operating the IRISV3 program.

If you still experience difficulties with this program, send an e-mail to: iris@cms.hhs.gov.